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ABSTRACT

Funded by a state grant through the Bureau of In-Service Education under the Education Professions Development Act, Part F, this 2-week summer institute and 1-semester follow-up project to improve skills in working with minority group students was sponsored by New York City Community College and the Division of Teacher Education of the City University of New York. Participants included 50 2-year college faculty members who were involved with business technology and engineering technology students. Learning and developing new teaching techniques by understanding the problems, viewpoints, and aspirations of minority youth students, particularly Negro and Puerto Rican, was the major emphasis. The theme of "open admissions" was focused on by means of various presentations during the entire summer institute. Participants developed individual demonstration projects which were carried out during the fall 1971 semester and summarized in reports. A series of separate group meetings were held, and at the final meeting after separate morning sessions, the entire group reassembled for a summary and critique session. While a number of valuable changes have been proposed, evaluations by participants and key consultants were positive. A participant questionnaire, project reports, and a list of consultants and staff are appended. (AG)

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IMPROVING THE SKILL OF TWO-YEAR COLLEGE FACULTY IN WORKING WITH BUSINESS TECHNOLOGY & ENGINEERING TECHNOLOGY MINORITY GROUP YOUTH

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Sponsored by
New York City Community College
The Division of Teacher Education of the City University of New York
Funded by a Grant through the
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under the
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IMPROVING THE SKILL OF TWO-YEAR COLLEGE FACULTY IN WORKING WITH MINORITY GROUP BUSINESS AND ENGINEERING TECHNOLOGY STUDENTS

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A Summer Institute & Follow-Up Project
Sponsored by
New York City Community College
and
The Division of Teacher Education of the City University of New York

Funded by a Grant through the
Bureau of In-Service Education, State Education Department
under the
Education Professions Development Act, Part F

FINAL REPORT

SUMMER INSTITUTE & FOLLOW-UP PROGRAM

IMPROVING THE SKILL OF TWO-YEAR COLLEGE FACULTY IN WORKING WITH MINORITY GROUP BUSINESS AND ENGINEERING TECHNOLOGY STUDENTS

SPONSORS:

New York City Community College

and

The Division of Teacher Education of the

City University of New York

DATES OF OPERATION:

July 12, 1971 to July 23, 1971	SUMMER INSTITUTE
July 24, 1971 to January 31, 1972	FOLLOW-UP PROGRAM

FUNDING:

Education Professions Development Act, Part F

Bureau of In-Service Education

State Education Department

PREPARED BY:

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JUNE 1972

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CAPSULE SUMMARY

Fifty 2-year college faculty members, who are involved with business technology and engineering technology students, were participants in a two-week Summer Institute and one semester Follow-Up Program to improve their skill in working with minority group students. Major emphasis was focused on learning and developing new teaching techniques by understanding the problems, viewpoints, and aspirations of minority youth students, particularly Black and Puerto Rican. Expert presentations were given on Open Admissions and the theme was prevalent during the entire Summer Institute.

Participants developed individual demonstration projects which were carried out during the Fall 1971 semester and summarized in reports. A series of separate group meetings were held, and at the last meeting after separate morning sessions, the entire group reassembled for a summary and critique session.

While a number of valuable changes have been proposed, evaluations by participants and key consultants were positive.

ENROLLMENT

LIST OF PARTICIPANTS

Ralph G. Abrahams, Graphic Arts & Advertising Technology, New York City Community College

Richard E. Adelson, Marketing, Kingsborough Community College

Bobby Lee Baldwin, Secretarial Science, Kingsborough Community College

Doublas Behrens, Architectural Technology, Voorhees Technical Institute

George Cavaliere, Mechanical Technology, New York City Community College

Patricia Clis, Marketing, New York City Community College

Elliot Colchamiro, Construction Technology, New York City Community College

Louis A. Csajko, Machine Tool Technology, Voorhees Technical Institute

Ivy Y. Dabiri, Secretarial Science, New York City Community College

Allan DeGiulio, Developmental Skills, New York City Community College

Arthur E. DelGirono, Electrical Technology, New York City Community College

Anne Marie Dragowits, Secretarial Science, Westchester Community College

Hyman R. Goldberg, Business Technology, Nassau Community College

Irma K. Green, Secretarial Science, Westchester Community College

Max Klein, Mechanical Technology, New York City Community College

Carl A. Kloiber, Mechanical Technology, Suffolk County Community College

Mark Kogan, Mechanical Technology, New York City Community College

Louise B. Koscheva, Secretarial Science, SUNY A & T College at Farmingdale

Murray Krieger, Cooperative Education, Bronx Community College

James M. Landers, Business Technology, Queensborough Community College

David Lang, Retailing, Kingsborough Community College

Solomon Lapidus, Mechanical Technology, New York Community College

William Levy, Graphic Arts & Advertising Technology, New York City Community College

Clara S. Linn, Secretarial Science, Bronx Community College

Manual A. Lizarzaburu, Electrical Technology, Suffolk County Community College

Francis W. Meyer, Construction Technology, SUNY A & T College at Farmingdale

Tibor Mingovits, Graphic Arts & Advertising Technology, New York City Community College

Dinah L. Moche, Physics, Queensborough Community College

Jeffrey A. Newman, Automotive Technology, Voorhees Technical Institute

Henry Ortiz, Mechanical Technology, New York City Community College

Sydney H. Pigott, Electrical Technology, New York City Community College

Edward G. Pita, Mechanical Technology, New York City Community College

Maurice Plotkin, Electrical Technology, SUNY A & T College at Farmingdale

Stephen Poch, Mechanical Technology, New York City Community College

Joel I. Podell, Business Technology, Queensborough Community College

Catherine A. Porzio, English, Voorhees Technical Institute

John C. Raffaele, Electrical Technology, SUNY A & T College at Farmingdale

Myron J. Salston, Business Administration, SUNY A & T College at Farmingdale

Romilda V. Savino, Secretarial Science, Borough of Manhattan Community College

Byron G. Schieber, Mechanical Technology, Queensborough Community College

Fred W. Schmitz, Chemical Technology, New York City Community College

Victor S. Strozak, Developmental Skills, New York City Community College

Louis W. Tana, Graphic Arts & Advertising Technology, New York City Community College

Clemontine R. Tulloss, Secretarial Science, New York City Community College

Roberta Weill, Secretarial Science, Borough of Manhattan Community College

Abraham Weinstein, Mathematics, Nassau Community College

Leonard Weiss, Mechanical Technology, New York City Community College

Albert J. Williams, Developmental Skills, Voorhees Technical Institute

Alexander Zamcov, Electrical Technology, Voorhees Technical Institute

Lawrence Zucker, Electrical Technology, Queensborough Community College

PUBLICITY

Brochures describing the program for Business Technology participants were mailed to department chairmen (10 copies each) at 20 metropolitan area institutions and at 44 institutions (5 copies each) outside of the New York City metropolitan area. In addition, the entire faculty of the Division of Commerce at the host institution received copies. A total of approximately 500 pieces were mailed.

The Engineering Technology brochure was mailed in multiple copy to some 67 people at 11 institutions, as well as each of the 20 participants in the 1970 Summer Institute. In addition, technology faculty, including new appointees for the Fall 1971 semester, received copies as well as the mathematics, physics, and developmental skills departments at the host college. Approximately 500 pieces of this brochure were mailed.

APPLICANTS

Application letters were received from 64 individuals (28 business tech, 36 engineering tech). A total of 14 who had been accepted as participants changed their plans and withdrew (5 business tech, 9 engineering tech), allowing those on waiting lists to be admitted. The 50 persons who completed the 2-week Summer Institute consisted of 23 business tech and 27 engineering tech participants. An additional 5 faculty inquiries were redirected to Summer Institute programs conducted by other colleges.

GROUP CHARACTERISTICS

The 50 participants are further described by the following characteristics:

Characteristics	Group Description
1. Sex	39 men, 11 women
2. Age	6 from 25 to 29 yrs; 10 from 30 to 34 yrs; 6 from 35 to 39 yrs; 5 from 40 to 44 yrs; 10 from 45 to 49 yrs; 2 from 50 to 54 yrs; 6 from 55 to 59 yrs; 5 from 60 to 64 yrs.
3. Ethnic Background	5 Black; 1 Mexican-American; 44 Caucasian
4. Education - Highest Degree	2 PhD's; 36 Master's; 8 Bachelor's 2 Associate's; 2 none
5. Teaching Experience	17 from 1 to 4 yrs; 16 from 5 to 9 yrs; 7 from 10 to 14 yrs; 3 from 15 to 19 yrs; 7 20 or more years.
6. Participant's Institutions	2 Borough of Manhattan Community College 2 Bronx Community College 3 Kingsborough Community College 2 Nassau Community College 21 New York City Community College 5 Queensborough Community College 5 SUNY A & T College at Farmingdale 2 Suffolk Community College 6 Voorhees Technical Institute 2 Westchester Community College

DESCRIPTION.

SUMMER INSTITUTE SCHEDULE

Monday, July 12, 1971

9:30 AM Joint Meeting - Registration, forms, etc. Introduction of key personnel; distribution of name tags, schedules, and Institute kit materials.

10:45 AM BREAK

11:00 AM Small Group Sessions - Warm-up exercise. "Who Shall Survive?"

12:30 PM LUNCH

1:30 PM Joint meeting of combined group. Panel discussion on understanding students' academic background. Three major addresses:

1) Citywide picture as seen by City University
2) Admissions picture - overall admissions procedures and problems experienced in first year of Open Admissions
3) High School picture - overall experience of high school students related to College application and initial experiences in first year of Open Admissions.

A general discussion followed.

3:15 PM BREAK

3:30 PM Small group sessions - discussions on understanding students' academic backgrounds.

Tuesday, July 13, 1971

9:30 AM	Joint Meeting - combined group session - Understanding Student Cultural and Environmental Backgrounds. Four major presentations, two on understanding Puerto Rican students and two on understanding Black students.
12:30 PM	LUNCH
1:30 PM	Combined Group Session with Panelists on understanding students' cultural and environmental background.
3:15 PM	Small group sessions on understanding student cultural and environmental backgrounds.

Wednesday, July 14, 1971

Visit to ghetto communities. The Business Technology Group visited the Bedford-Stuyvesant community. The Engineering Tech Group visited the Bushwick community.

9:15 AM	Groups assembled at College. Transportation to the two ghetto communities.
9:45 AM	Large group sessions on arrival in both communities covering orientation to the community, the role of the host organizations in the community, an outline of the planned program, and question and answer period. In the Bedford-Stuyvesant community the host organization was Bedford-Stuyvesant Youth in Action Community Corporation. In the Bushwick community, the host was the Bushwick Community Corporation.
10:45 AM	Visits to operating community programs in groups of 3 or 4 participants with Community Consultants. Groups followed different itineraries.

1:00 PM LUNCH

Panel discussions, major presentations by community leaders.

2:00 PM Small group visits continued.

The day's visits included a variety of centers and programs (such as Day Care Centers, drug prevention programs, manpower development, self-help, economic development, restoration programs, etc.) as well as visits to private homes, youth activity programs, meetings with parents and meetings with young people.

4:00 PM Large group session - Summary discussion of today's activities.

5:00 PM Transportation back to College.

Thursday, July 15, 1971

9:00 AM Business Tech Group and Engineering Tech Group - separate meetings - Student Panels. Student panel of minority group students from various Community Colleges and High Schools in the New York City area. Panel discussion on the transition from high school to college. Major presentations, open discussion and question and answer period.

11:00 AM Small group sessions with individual panelists.

12:30 PM LUNCH

1:30 PM Separate meetings - Business Tech Group and Engineering Tech Group - Industry Panels. Panel discussion by industry panelists on the overall topics of job availability, placement, and advancement for minority group students with Associate in Applied Science degrees.

3:15 PM BREAK

3:30 PM Small group sessions with industry representatives.

Friday, July 16, 1971

A repeat of the July 14th visits to ghetto communities with the Engineering Tech Group going to Bedford-Stuyvesant community and the Business Tech Group going to the Bushwick community.

****

Monday, July 19, 1971

9:30 AM Joint meeting - Distribution of schedules and review of second week work schedule.

10:00 AM Small group sessions. Discussion on ghetto visits, and readings.

10:45 AM BREAK

1:30 PM Joing meeting - Linguistics: Myths & Realities. Two presentations made by members of Brooklyn College staff working on Ford Foundation grant for the study of Black English. Discussions followed formal presentations.

3:15 PM Large Group Sessions - Business Tech Group and Engineering Tech Group met separately with guest speakers to discuss the problems of linguistics as they relate to minority group students.

Tuesday, July 20, 1971

2:00 PM Combined meeting for viewing of the film "The World of Piri Thomas"

3:15 PM BREAK

3:30 PM	Small Group Sessions - discussions on film.
5:00 PM - 8:15 PM	Combined Meeting - Theater - Stage play "Black Girl"

Wednesday, July 21, 1971

9:30 AM	Large Group Sessions. Business Tech Group and Engineering Tech Group met separately to discuss teaching techniques. These sessions were chaired by educational consultants from the areas of Business Technology and Engineering Technology.
11:00 AM	Small Group Sessions. Each session chaired by an educational consultant in the area of Business or Engineering Technologies.
12:30 PM	LUNCH
1:30 PM	Small Group Sessions. Afternoon of discussions in small groups as in the A.M.
3:15 PM	Large Group Sessions. Teaching techniques and introduction to project development - Business Tech Group and Engineering Tech Group met separately.

Thursday, July 22, 1971

9:30 AM	Large Group Sessions. Business Tech and Engineering Tech Groups in separate meetings - Continuation of project development.
10:45 AM	BREAK
11:00 AM	Small Group Sessions - Project development workshops.
12:30 PM	LUNCH

1:30 PM	Small Group Sessions - Project development workshops.
3:15 PM	Large Group Sessions - Business Tech and Engineering Tech meetings on overall discussion of project development.

Friday, July 23, 1971

9:30 AM	Large Group Sessions - Business Tech and Engineering Tech Groups. Project proposal preparation. Aided by educational consultants.
11:00 AM	Independent project proposal preparation.
12:00 Noon	LUNCH
1:00 PM	Large Group Sessions - Business Tech Group and Engineering Tech Group - Separate meetings for the purpose of critiques, Institute evaluation, and Follow-Up Program plans.
3:00 PM	Joint Meeting - Summary Session. Review of project proposals and Follow-Up Program, and overall critique and evaluation of Summer Institute. Final business details and formal closing of the Summer Institute.

FOLLOW-UP PROGRAM

The Follow-Up Program consisted of independent work on approved individual demonstration projects and a series of three large group meetings for the Business Tech group and the Engineering Tech group, separately.

The Follow-Up Program meetings took place on October 30, 1971, December 11, 1971, and January 22, 1972, all Saturdays. The Business Tech group meetings were all held at New York City Community College. The Engineering Tech group meetings were held at Queensborough Community College, SUNY A & T College at Farmingdale, and New York City Community College, respectively. These meetings were devoted to review and critique of individual project progress and problem-solving, and further discussions of readings as applied to project experiences and findings. At the last meeting after separate morning sessions, the entire group reassembled for an overall critique, evaluation, and summary session to formally close the Follow-Up Program.

EVALUATION

OBJECTIVES

Objective 1 - To provide the participants with a matrix of factual information based on research and expert opinion.

Evidence - All participants received the following materials:

Required Texts:

The Autobiography of Malcolm X. A. Haley and Malcolm X, Grove Press, 1966.

Down These Mean Streets. P. Thomas, Signet Books, 1968.

Against The Odds. W. Moore, Jr., Jossey-Bass, Inc., 1970.

Employing the Hard-Core Unemployed. American Management Association, Inc., 1969.

Black Rage. W.H. Grier and P.M. Cobbs, Bantam Books, Inc., 1969.

Papers, Pamphlets, Periodicals:

"A Response to Approaches to Social Dialects in the Field of Speech," Orlando Taylor, Center for Applied Linguistics.

"Model With Alternatives for Helping Minorities to Gain Entry into Technical Education," Robert McKee, AMIDS.

"Bibliography on Effective Teaching," American Society for Engineering Education.

"Profile of a Disadvantaged Youth," Robert Couche.

"What Does Open Admissions at City University Mean?", CUNY.

"The SEEK Program: A SEEK Student's View," Community Issues.

"Counseling the Disadvantaged: Avenues to Effectiveness," Edmund Gordon, in Capsule, Winter, 1969.

"Black Student Potential," Dorothy Knoell, American Association of Junior Colleges.

"New York State Employment Service and the Disadvantaged of New York City," New York State Department of Labor.

"Retail Trade in the New York City Economy," U.S. Department of Labor.

"Opportunities for Blacks in the Profession of Engineering," R. Kiehl, Newark College of Engineering.

"Neighborhood Youth Corps Goes to Community College," Jr. College Journal, April 1971, pp. 14-17.

"Black Nonsense," Crisis, April-May, 1971, and Letter in Response.

"You and Your Students," American Society for Engineering Education.

"Rice and Beans Test," adapted from Training Manual, Regional Manpower Services.

"The Chitling Test," New Republic, December 16, 1967.

Newspaper Articles:

"City University is Adjusting to the Sharp Increase in Number of Freshmen," N.Y. Times, March 26, 1971.

"Ethnic Listing of Freshman Day Students at City University," N.Y. Times, March 26, 1971.

"Report Card on Open Admissions," N.Y. Times Magazine, May 9, 1971.

"CUNY Freshmen In Profile," LC Reporter, May 1971.

"Champion of High Standards Called Too Outspoken," LC Reporter, May 1971.

"Ethnic Composition of Undergraduate Enrollments," The Chronicle of Higher Education, March 29, 1971.

"Graduate School Enrollments of Negroes, Other Minorities," The Chronicle of Higher Education, April 12, 1971.

"Educators Cite Problems of White Teachers in Black Schools," N.Y. Times, March 16, 1971.

"Malcolm X College's Aim: Black Community Self-Determination," The Chronicle of Higher Education, May 31, 1971.

"Brownsville Returning to its Normal Desperation," N.Y. Times, May 8, 1971.

"Bushwick Fights Stepchild Role," N.Y. Times, April 18, 1971.

"The Outer City: Negroes Find Few Tangible Gains," N.Y. Times, June 1, 1971.

"The Ugly Face of Race Hatred in Queens," N.Y. Times, June 12, 1971.

"From Dakto to Detroit: Death of a Troubled Vietnamm Hero," N.Y. Times, May 26, 1971.

"Blacks Go Up 22% in Elective Offices," N.Y. Times, May 2, 1971.

"Carmichael, Back in U.S., Bids Blacks Build Mother Africa," N.Y. Times, March 21, 1971.

"A Black Panther Speaks," N.Y. Times, May 12, 1971.

"Brooklyn College Course on 'Black English' Designed to Help Students Learn Standard English," N.Y. Times, March 14, 1971.

"Despite Its Grammar Black English is Winning Favor Among Teachers," The Chronicle of Higher Education, April 5, 1971.

"Queens District Seeks Book Ban," N.Y. Times, April 5, 1971.

"Board Bans Book Despite Protests," L.I. Press, April 20, 1971.

Evidence - In addition to the above items, an extensive display of relevant books, periodicals, magazines, newspapers, reprints, reports, etc., was available during the Institute for examination and circulation.

Evidence - The participants were exposed to formal and informal presentations and discussions by more than 80 consultants.

Objective 2 - To provide a variety of experiences for the participants which will produce more positive attitudes toward minority group students and improve student-teacher relationships.

Evidence - Participants were engaged in the following variety of experiences:

Large group sessions with formal presentations or panels.	(16)
Large group sessions with film or theatre presentations.	(3)
Workshop sessions relating to projects.	(16)
Large group discussion or question-answer sessions.	(11)
Small group discussion sessions.	(28)
Small group visitation sessions.	(24)
Informal discussion sessions.	(12)
Large group follow-up meetings.	(6)
Individual project activity.	
Outside reading assignments.	

Evidence - For additional evidence related to this objective, see section on Summary of Results.

Objective 3 - To make use of the foregoing information and experiences to improve the teaching-learning process in career program courses.

Evidence - Two and one half days of the Summer Institute concentrated on teaching techniques and individual project development. Follow-up program meetings and projects continued this emphasis.

Objective 4 - To provide opportunities for participants to demonstrate specific techniques in real situations at their home institutions during the Fall 1971 semester.

Evidence - The Follow-Up Program provided this opportunity for participants to do individual projects in their home institutions.

Objective 5 - To increase participants' preparedness to work with Open Admissions students.

Evidence - A series of expert presentations on Open Admissions were given during the Summer Institute in addition to several small group discussions which dealt with the same topic. This theme threaded through the entire Summer Institute and Follow-Up Program.

Objective 6 - To disseminate to the occupational education community the findings, newly created techniques, and recommendations that result from the Summer Institute and Follow-Up Program.

Evidence - All participants have received information on follow-up projects, and projects have been widely discussed during the Follow-Up Program meetings. In most cases, participants will be sharing selected results with colleagues at their home institutions. Since ten institutions were represented, this form of communication may be significant for the region.

The Project Director and Co-Director conducted morning and afternoon sessions about the Summer Institute at the New York City

Community College Faculty Conference on September 10, 1971. Approximately 50 faculty members attended these sessions.

This report will be offered to the ERIC system so that it will be available to the educational community. The Project Director and Co-Director will continue to seek additional means of disseminating information relating to this project.

METHODS OF EVALUATION

The evaluation process was carried on at several times and levels. A summary of this process follows:

1. Informal evaluations by participants during the Summer Institute provided direct feedback on facilities, formats, speakers, sessions, materials, etc.

2. Periodic meetings with Senior Educational Consultants during Institute to evaluate past sessions and plan subsequent sessions based on participant comments and observations of consultants.

3. Large group evaluation and critique session on the final day of the Summer Institute and at last Follow-Up meeting.

4. Evaluation reports by Senior Educational Consultants after the Summer Institute.

5. Evaluation questionnaire completed by participants at the end of the Follow-Up Program.

6. Representatives of the State Education Department made an on-site evaluation visit during the Summer Institute.

7. Evaluation questionnaires were completed for the federal sponsors by the Project Director and a statistically selected sample of participants.

SUMMARY OF RESULTS

The first two evaluation techniques had a direct impact on the flexibility and responsiveness of the operational program. Thus, session formats were modified, schedules were varied, and other changes were made in accordance with group comments. Observations of the Senior Educational Consultants were invaluable in planning for these adjustments.

The large group evaluation and critique sessions, while primarily salutory, did include a number of recommendations for future improvements in the program, (see Program Improvements section). The complimentary remarks are adequately represented in the summary of questionnaire responses later in this section and need not be repeated.

The results of the anonymous participant questionnaire, completed at the end of the Follow-Up Program are given below, followed by evaluative comments from the Senior Educational Consultants. Data from the State Education Department visitation and the federal questionnaires are not available to us at this time.

PARTICIPANT QUESTIONNAIRE

Forty-four of the fifty respondents responded to the participant questionnaires. Due to the anonymous nature of the instrument, no attempt was made to seek out the six who did not comply. It is also not possible to subdivide the respondents by business technology-engineering technology groups. A copy of the questionnaire form is given in Appendix A.

The results of the participant questionnaire follow.

1. Evaluation of two-week Summer Institute (N = 44).

52% = Extremely Valuable
42% = Worthwhile
5% = Minor value
0% = Worthless

2. Personal value of participation in an individual follow-up project (N = 44).

30% = Extremely Valuable
59% = Worthwhile
11% = Minor Value
0% = Worthless

3. Communicate Institute-related materials to your colleagues at your own institution? (N = 43)

81% = Yes
19% = No

4. Attendance at post-Institute meetings (N = 44).

55% = Attended all 3 meetings
20% = Attended 2 meetings
16% = Attended 1 meeting
9% = Attended no meetings

5. Post-Institute meetings attended of value? (N = 38)

18% = Extremely Valuable
53% = Worthwhile
29% = Minor Value
0% = Worthless

6. Effect of post-Institute meetings attended on your individual project (N = 39).

33% = Positive Effect
65% = Little or No Effect
3% = Negative Effect

7. Continued to communicate with participants from other colleges as a result of the Summer Institute and Follow-Up Program? (N = 40)

43% = Yes

57% = No

8. Effect of Summer Institute and Follow-Up Program on your relations with students? (N = 40)

85% = Positive Effect

15% = Little or No Effect

0% = Negative Effect

Most questionnaire items provided participants with an opportunity to add comments. Of the 158 comments volunteered, 133 were positive, 8 were critical, and 17 were neutral explanations.

A sample of the critical comments follows.

1. The follow-up project took more time than had been anticipated. Time limitations were restrictive.

2. There should have been a greater contribution "from the other side of the coin." There are other minorities that have been abused in this democracy.

3. Suggest more visitation to other areas and an opportunity to work with teachers in these (ghetto) schools.

4. The follow-up project required too much effort on my part with poor results obtained.

A sample of the positive comments follows.

1. A jarring experience. An awakening to a world of reality; the ghetto and its influence on the community college.

2. There was an entirely new world of information presented to me that has helped me greatly in the classroom and out of the classroom with the students.

3. The Institute made me focus in on my own feelings and attitudes toward minority group students.

4. The program has given me more insight and compassion for the low achiever.

5. As a minority individual, the Institute reinforced what I know about minorities. I was enlightened by some approaches to help students. With open enrollment, more faculty members should participate in this type of institute.

6. The follow-up project gave me a more meaningful understanding of the needs of open admission students.

7. As a result of the Summer Institute I am now exploring new teaching techniques which might prove effective. I obtained valuable information on sources of texts and films for remedial students and underachievers from the post-Institute meetings.

8. Based on my follow-up project findings, we hope to improve the remediation program offered next term.

9. At the post-Institute meetings, the opportunity of hearing colleagues from other institutions describe their experiences with underachievers was extremely valuable.

10. I now have a better understanding of what minority students have to cope with in their daily lives. Hence, I can relate to them and their problems.

11. I was given a better insight into student problems and picked up pointers on methods of instruction.

12. Since I understand the students, their backgrounds and difficulties a little more, I can meet with them on their level and work to guide them from one level to the next with little or no communication

gap, and on an individual personal level. I no longer teach to a class, but to Mary, who is a part-time photographer, to Dick, who likes Susan, etc.

13. I encouraged several colleagues to attend a (minority awareness) workshop conducted by Northeast AMIDS.

14. The Institute should be a continuing program, where refresher courses are given each year.

15. I believe this should be a prerequisite course for all incoming faculty.

16. Since the Summer Institute, I've become quite involved in working with disadvantaged minority students. In addition to my regular work, I am teaching (part-time) at a Cooperative College Center, which is an institute to deal with the educational deficiencies of adult black, Puerto Rican, and other minority groups to prepare them for college-level work.

SENIOR EDUCATIONAL CONSULTANTS' COMMENTS

The following evaluative comments were offered by the four Senior Educational Consultants.

Generalized Comments

1. "The general organization of the summer institute was outstanding . . . Well done!"

2. "The organization and structure of the program was the ultimate in excellence."

3. "The strategies employed in this Institute . . . appeared to have been extremely effective."

4. "In most instances the schedule of activities remained flexible and responsive . . ."

5. "The advance meetings . . . were most beneficial . . . Evaluative discussions of the previous summer . . . made it possible to anticipate certain problem areas . . . (and) to cope with them more effectively. . . ."

6. ". . . the number of participants . . . was too large."

Small Group Sessions (Palmer)

1. "Judging from the responses of the professors in my group, the basic objectives of this Institute were indeed accomplished."

2. "What emerged during a number of earlier sessions might be characterized . . . as 'creative tension.' In this setting, interaction and communication were basically unguarded and spontaneous."

3. "Attitudinal changes were evidenced by the increasing ease of communication about and on behalf of minority students. Evidence of anxiety . . . had almost disappeared at the end of the first week. The climate . . . moved from overt defensiveness to one of mutual cooperation in the solution of serious educational problems."

Small Group Sessions (Adesman)

1. "Most of the participants were older, more rigid, polite and made pertinent comments, in comparison to last year's Institute . . ."

2. "I felt some change for some participants took place but not the total awareness which I (had) anticipated."

3. ". . . they came . . . for specific teaching techniques but discovered that techniques came from the individual's own explorations. The Institute provided them with an understanding and view that was not present before."

4. "A Chairman of a department with faculty from the same department should not be participants in the same Institute. We discovered an inhibition and hesitation in speaking out."

Small Group Sessions (DeLeon)

1. "The small group sessions did help some participants . . . , but it also gave others grounds for saying less revealing things in subsequent sessions. It was painful to see the clutching for techniques and formulas on the part of some individuals as soon as the discussion came close to their personal core. This movement from involuntarily revealed attitudes to pleas for specific applications . . . is probably the best . . . evidence that we were reaching them where they were unprepared to be reached."

2. ". . . so many of the participants are helpless to adjust any of their own attitudes without the assistance of other participants. It was frustrating . . . to realize that even if we did succeed in opening up certain self-perceptions, these initiations to undiscovered selves might not lead anywhere unless the participants . . . continued to make some effort in this direction with the assistance of others."

Small Group Sessions (Minter)

1. ". . . the group expressed an appreciation of the material and content of the Institute, but the underlying feeling was that they really did not get what they were really looking for and that was a cookbook recipe . . ."

2. "With one exception, . . . there was little evidence of any true attempt at an introspective examination of their attitudes and feelings in regard to minority students."

3. "I found this year's Institute participants to be very different from last year's in composition, interest, and attitude. . . . The sexual distribution was terribly skewed (only one woman). The inclusion of a . . . departmental chairman in the group was a destructive factor."

Specific Session Comments

1. "It was interesting to observe the group process during the warming up exercise . . . This was one of the few times that everyone fully participated . . . without restrictions."

2. "(The warm-up exercise) was an ingenious device to elicit value-judgements and to facilitate examination of one's estimate of the worth of various classes of human beings in a complex and unique situation."

3. "There was a good deal of interest in and discussion about the presentation on . . . Students' Academic Backgrounds."

4. "This discussion (Understanding Puerto Rican Students) was somewhat disjointed with too much emphasis on statistics and not enough concrete information about the specific educational problems of Puerto Rican youth."

5. "Despite the emotional tone and obvious anger generated in the . . . session (Understanding Black Students), the . . . discussions . . . were effective in focusing on the positive aspects of the information presented and also in examining the motives for the anxiety level of the larger group session."

6. "This session (Understanding Black & Puerto Rican Students) succeeded in antagonizing many of the participants. Whether or not this antagonism became a productive force at a later stage of the Institute is a question which I cannot answer."

7. "This panel (Understanding Black & Puerto Rican Students) served a very important purpose. The participants were at a low ebb and felt hostile to them because of the futile feeling they came away with. They were looking for hope, a pat on the back, etc. It was restored the next day in their visits to the ghetto. . . . The participants wanted to see the worst but did not want to hear the worst."

8. ". . . the instructors gained the most (during the community visits) from their discussions with residents of the areas who were in the age range closest to their own students."

9. "One visit to the ghetto would suffice."

10. "The students (panel) made a vital and unique contribution to this Institute. . . . The students provided a wealth of information which is directly related to the teaching-learning process in general, and a refreshing perspective of minority student sensitivities to the various aspects of this process."

11. "In selecting the Industry Panel . . . I would suggest seeking non-public relations representatives. The image and projections . . . portray their being on stage performing and selling their companies."

12. "The representatives on this (industry) panel constituted a very good cross-section of local industries."

13. "I feel that the sessions that had the greatest impact were the . . . Industrial Panel and the theatre production Black Girl. The interest in (the) panel and the following discussion was exceptionally high, with total participation, and it ran overtime."

14. "Something went wrong on (the film and theatre) day and I have been trying to figure out what it was. The participants seem to have been surfeited with the squalor, the drugs, etc., highlighted in the Piri Thomas film. Black Girl packed its punch, but no one seemed to complain about that one. Could it be that no one seemed to feel responsible in any way for the conditions in Black Girl, but they were made partially responsible for the conditions in the Piri Thomas film by Piri's narrative comments."

15. "(The film and play) were very sensitive--very important. Participants were moved by both experiences."

16. "The film . . . provided a shocking visual revelation of a multiplicity of ghetto problems. . . . It was also a very timely reinforcement of the earlier reading of the book (Down These Mean Streets)."

17. "The show Black Girl provided a realistic picture of some of the pathological conditions and conflicts which occur in many slum families. Of particular importance to the Institute participants was the hostility directed towards the member of the family who sought to break out of the cycle of poverty via higher education."

18. "(They) conducted an impressive and informative discussion on linguistics and its relevance to understanding the most important mods of transmitting knowledge in the educational process."

19. (On linguistics) "It was an important concept to listen to, but too much time was allowed."

20. "The group was highly receptive to all of the presentations except the one on linguistics."

21. (On linguistics) "Not everyone caught the point of this session. I found it amusing to observe a . . . number of the participants making grammatical errors when they were speaking to the group . . . about the need for students to learn English."

COMPLETION RATIOS

Several completion ratios may be used as additional evaluative factors.

1. 100% (50 of 50 participants) completed the two-week Summer Institute.

2. 100% (50 of 50 participants) agreed to do individual demonstration projects as part of the Follow-Up Program.

3. 82% (41 of 50 participants) completed individual projects and submitted final reports.

INDIVIDUAL DEMONSTRATION PROJECTS

The quality and potential usefulness of individual demonstration projects provide an additional element for evaluation. The titles of the 41 individual projects are listed below with their authors. Project reports are found in Appendix B.

1. Utilizing the Community Group as a Two-Way Channel of Communication with Minority Students, Ralph G. Abrahams

2. The Establishment and Operation of Small Businesses by Minority Group Students as an Educational Tool, Richard E. Adelson

3. Orientation of Architectural Technology Curriculum Design Problems with a View towards Motivation of Minority Group Students, Douglas A. Behrens

4. Counseling and Tutoring of Disadvantaged Students, George Cavaliere

5. College Business Math - Supplementary Classroom Manual, Patricia Clis

6. A Student Prepared Film, "Construction Technology at New York City Community College," Elliot Colchamiro

7. Self-Instructional Technical Mathematics Workbook, Louis Csajko

8. To Develop Effective Techniques and Instructional Materials for a Heterogeneous Intermediate Pitman Shorthand Class at New York City Community College, Ivy Y. Dabiri

9. The Relationship Between Academic Achievement, Job Performance, and Job Satisfaction of Minority Group Students, Allen DeGiulio

10. A Problem Approach to the Performance of Laboratory Experiments, Arthur E. DelGiorno

11. To Develop a Counseling Program for Freshman Students in the Business Secretarial Area at Westchester Community College, Anne Marie Dragowits

12. To Develop Learning Materials for Beginning Shorthand Students to be Used in a Learning Center Currently Being Developed at Westchester Community College, Irma K. Green

13. To Study the Effectiveness of Taped Cassette Lectures for Underachieving Students in the Industrial Processes Course, Max Klein

14. Determining the Availability of Films for Use in Counseling Minority Students into Various Technologies, Mark Kogan

15. Student Utilization of Skills Center Hours, Louise B. Koschava

16. Operation "Career and Occupational Information" with a Minority Secondary-Feeder School by a Community College, Murray Krieger

17. A Proposal to Set-Up a Program to Acquaint Students with Career Opportunities in Retailing (Stores and Buying Offices) with Special Emphasis on Minority Students, David Lang

18. Mathematics Tutoring Project Immediately After Class on Material Pertinent to the Student, Solomon Lapidus

19. A Proposed Curriculum for a One-Year Certificate Program in Office Skills at Bronx Community College, Clara S. Linn

20. A Slide-Tape Presentation of the Civil-Construction Technology Curriculum of the State University of New York at Farmingdale, in Action, Francis W. Meyer

21. The Use of Graphic Arts Program at the Community College to Open Opportunities for Minority Students, Tibor Mingovits

22. Improving Technology Student Skills in Solving Physics Problems, Dinah L. Moche

23. Improving Motivation of Disadvantaged Students by Using Short Term Goals, Jeffrey A. Newman

24. Improving Minority Group Student/Teacher Relationships, Henry Ortiz

25. Evaluation of Technical Manpower Requirements of Local Industries in Ghetto Areas, Sydney H. Pigott

26. The Use of Spanish Language Texts as Supplemental Instructional Material in Mechanical Drawing, Edward G. Pits

27. A Survey of the Relative Influence of a Number of Factors That Affect Students' Attendance at Extra-Help Sessions, Maurice Plotkin

28. Increasing Learning Experiences With Educational Games, Stephen Poch

29. Student Prepared Freshman English Curriculum and Handbook, Catherine A. Porzio

30. Promoting Interpersonal Relationships in the Learning Process, John C. Raffaele

31. Establishment of a Tutorial Program for Academically Deficient Accounting Students in Second Semester Accounting, Myron J. Salston

32. Minority Students in Bachelor of Technology Program at The City College of CUNY, Byron G. Schieber, Jr.

33. To Orient Local Community Groups to Educational and Industrial Opportunities in College Career Programs, Fred W. Schmitz

34. The Effects of a Problem-Solving Method of Instruction in Developmental Science, Victor S. Strozak

35. Presenting Career Opportunities to Minority Students, Louis W. Tana

36. Selecting and Applying for the Job that Meets the Applicant's Qualifications, C. Ruth Tulloss

37. To Develop a Program to Enable the Non-Spanish Speaking Teacher to Communicate More Effectively with the Spanish Speaking Student, Roberta Weill

38. A Counseling Program in Mathematics for Minority Students Entering Engineering Technology Programs, Abraham Weinstein

39. Determining Changes in Attitude Toward College by Black and Puerto Rican Students During Their First College Semester, Leonard Weiss

40. Integration of Remediation in a Technical Curriculum, Alex Zemcov

41. Establishing What Minority Freshmen Technology Students Can Look Forward To In Industry, Lawrence Zucker

CONSULTANTS, STAFF, AND VISITORS

A list of Consultants and Staff associated with this project is given in Appendix C.

Several persons requested and were given the opportunity to visit certain sessions of the Summer Institute and Follow-Up Program.

PROGRAM IMPROVEMENTS

Suggestions for future program improvements were offered by participants and consultants. These, together with personal observations by the Director and Co-Director are the bases for the following proposals for future programs of this type.

1. Program expansion should be accomplished by adding new centers rather than increasing the group size in one center.

2. Readings and play were excellent and the film could have been deleted or shifted to first week.

3. Advance readings should be reviewed completely on the first day of the Summer Institute to establish a firmer foundation for subsequent sessions.

4. Small discussion groups should not be homogeneous by academic discipline. Small discussion group membership should be rotated at least once during the Summer Institute.

5. More speakers and panelists should be teachers and counselors from ghetto schools, students, and community college alumni.

6. The industrial panels were excellent, but community college alumni from different companies should be added.

7. Less time should be devoted to linguistics. Participants' linguistic problems might be added to this session.

8. Teaching technique sessions were only partially successful. These sessions require very careful planning and pre-testing.

9. Community visits should be included but two visits are somewhat redundant. A walking tour in groups of three, spending more time at fewer places would be a preferable format. A second day might be spent on a work assignment in the ghetto community.

10. Less time should be devoted to project development. Advance notice should be given with lists of ideas and sample proposals to expedite these sessions.

11. Individual demonstration projects are valuable, but alternative arrangements should be available, such as a work assignment in a ghetto community agency.

12. Academic year-long small discussion groups should be formed from among the participants.

EXPENDITURES

A total of $62,768 was approved for these dual projects, of which $59,541 was for direct costs and stipends and $3,227 for indirect costs. The final accounting of expenditures will be submitted at a later date by the Research Foundation of the City University of New York.

Report prepared by:

S.M. Brodsky, Project Director
Chairman, Division of Technology
New York City Community College

E.R. Hirsch, Co-Director
Chairman, Marketing Department
New York City Community College

APPENDIX A

PARTICIPANT QUESTIONNAIRE

1971

SUMMER INSTITUTE & FOLLOW-UP PROGRAM

PARTICIPANT'S EVALUATION QUESTIONNAIRE

1. In retrospect, how do you evaluate the two-week Summer Institute (July 12-23)? (Check one)

   ____Extremely Valuable ____Worthwhile ____ Minor Value ____Worthless

   COMMENT: ____

   ____

   ____

2. Of what personal value has your participation in an individual follow-up project been? (Check one)

   ____Extremely Valuable ____Worthwhile ____Minor Value ____Worthless

   COMMENT: ____

   ____

   ____

3. Do you communicate Institute-related materials to your colleagues at your own institution? ____Yes ____No

   If YES, give some examples: ________________________________

   ____

   ____

   If NO, give reason why: ________________________________

   ____

   ____

4. Which, if any, of the post-Institute meetings did you attend? (Check where appropriate)

Meeting	Attended	Did Not Attend
Oct. 30, 1971		
Dec. 11, 1971		
Jan. 22, 1972		

PARTICIPANT'S EVALUATION QUESTIONNAIRE (Continued)

IF YOU HAVE ATTENDED ONE OR MORE OF THE POST-INSTITUTE MEETINGS, PLEASE RESPOND TO QUESTIONS 5 THROUGH 8.

IF YOU HAVE NOT ATTENDED ANY OF THE POST-INSTITUTE MEETINGS, PLEASE SKIP QUESTION 5 AND RESPOND TO QUESTIONS 6 THROUGH 8

5. Did you find the post-Institute meetings which you attended of value? (Check one)

____Extremely Valuable ____Worthwhile ____Minor Value ____Worthless

COMMENTS: ____

____

6. Did the post-Institute meetings which you attended have any effect on your individual project? (Check one)

____Positive Effect ____Little or No Effect ____Negative Effect

COMMENTS: ____

____

7. Have you continued to communicate with participants from other colleges as a result of the Summer Institute & Follow-Up Program? (Check one)

____Yes ____No

COMMENTS: ____

____

8. What effect, if any, has the Summer Institute & Follow-Up Program had on your relations with students? (Check one)

____Positive Effect ____Little or No Effect ____Negative Effect

COMMENTS: ____

____

You are invited to add any additional comments which you wish to make in the space below:

____

____

____

APPENDIX B

FOLLOW-UP PROGRAM INDIVIDUAL DEMONSTRATION PROJECT REPORTS

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Utilizing the Community Group as a Two-Way Channel of Communication with Minority Students

by

Ralph G. Abrahams, Ass't. Professor
Department of Graphic Arts and Advertising Technology
New York City Community College

PURPOSES AND OBJECTIVES:

The intention of this project is to stimulate the interest of minority group students in the Community College, as a means to learning a professional skill. At a meeting during the Summer Institute, I discovered that none of the young people present at a question and answer period we scheduled, had the faintest idea of the opportunity presented by the Community College. I believe our training presented an opportunity for the young people I spoke to, as well as many young people not present. My project is to make a start. Once I can get a few young people to go to college, I have a good chance of attracting their friends and additional members of the family.

DESCRIPTION OF PROJECT:

My project was to go to a program called "Youth-In-Motion" that was located in Brooklyn at 1619 Broadway, and explain to neighborhood children, the advantages of a continuing education and their going to college to learn a specific technology--a technology that can be learned and that will serve them well when they look for work. I further explained that these programs can be finished in two years. The Community College student can attend at a pace that can be set by the student. We realize that some students must work, come from large families and have many problems that are unique. I had noticed dispair in very young children. I would like to reverse this trend and start young people thinking in terms of college, career and success.

FINDINGS AND CONCLUSIONS:

I was able to generate interest among the minority students just by coming down to their "turf." Many of the young people just sat and listened patiently and politely to my talks at first. I feel that I did impress some of the youths with the obvious advantages of continuing school and planning for a future that does exist. I know there was a degree of disbelief in what I said because I was white and they were black, and they had thard these "songs" before. I did notice that just my coming there did generate a trust in what I was saying they could do. The project I undertook was one that, by its nature, required time and planning that I did not have the time to accomplish. There is much more I could have done. Unfortunately, this was only a summertime program and, at the point I had developed an interest in the youths that were the leaders of the group, the program came to an end.

I have given the "project" much thought and additional planning. I was on the brink of reaching a good portion of the youths and I can succeed this coming summer. I have been training a creative group of students in the steps and procedures to be followed in an actual art studio or agency setting. This group is integrated and some of the minority group students have already successfully designed, planned and printed advertising pieces. Some of these pieces were directed at the minority group market and were created in a professional way. When I go back this summer, I can bring samples of completed jobs and also the students who created the printed pieces.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

The Establishment and Operation of Small Businesses By Minority Group Students As An Educational Tool

by

Richard Adelson
Kingsborough Community College

PURPOSES AND OBJECTIVES:

Since financial success is an important means of gaining recognition and acceptance in our society, then the knowledge that one is capable of earning money by his own efforts can motivate a student to gain further education. At the same time he is gaining an insight into business operation. This project will be geared to motivational as well as educational goals.

DESCRIPTION OF THE PROJECT:

A minimum of three minority group students will be recruited, encouraged and trained to start their own businesses. They will be required to maintain records as required by an operating business. They will be expected to follow accepted management and marketing practices. Initial funding for starting the businesses will be provided by myself on a loan basis. The businesses will be in the sales of services or goods requiring small initial capital outlays, and little or no rented business space. The results of the operation in terms of financial, educational and psychological aspects will be recorded at reasonable intervals. A handbook containing the steps followed and the ideas gained will be kept current for the use of future members who will enter the program.

FINDINGS AND CONCLUSIONS:

The purposes and objectives of the project were not fulfilled. Only three minority group students sought information and none returned to participate. It is interesting to note that many students from middle income families were anxious to become involved, but I could not accept them.

I used the following methods to recruit students.

1. Announcement to members of four Business Management and one Marketing class that I conduct at the college.
2. Requested counselors at the school to advise their students of the program and to make referrals.
3. Informed colleagues and requested referrals.
4. Described the program to financial aid officers at the school and sought referrals.
5. Requested that students in my classes tell their friends.
6. Placed posters in the halls.
7. Repeated my requests at various intervals, and checked back with the counselors, colleagues, and students, for referrals.

An effort to ascertain the reasons for failure to recruit students was begun at the suggestion of the leaders of our seminar. The following approaches were utilized:

1. Questionnaires were prepared.
2. Discussion groups were formed.
3. Class discussions were held.
4. In depth discussions were held with the school counselors who work with minority group students.
5. Colleagues were consulted.
6. The three students who originally applied but did not return were spoken to individually.

The information that was gained follows:

The students' lack of participation may be attributed to school requirements, financial requirements, the desire to maintain the status quo, fear of failure and dissatisfaction with the project. The responses gained will be listed under the five groupings listed.

School Requirements:

No time for school and work.

Instructors have advised students that school is a full time requirement.

Studies come first. Too pressed for time now.

Have too many obligations with school requirements.

Do not want to stray from field of specialization in college.

Financial Requirements:

Cannot afford to lose present earnings from part-time job.

Don't need the money.

Workers make more money than their bosses and they don't work as hard.

Unemployment benefits and grants are greater than the rewards from your own business.

Desire to Maintain the Status Quo:

Am satisfied with my present job which is enough.

More convenient to work part-time.

The Draft is a deterring factor.

Easier to get and keep a part-time job. In your own business, you are committed, but with a job, you leave when you like.

Prefer to have my social life while I can enjoy it. School and social life is enough for now.

Fear of Failure:

Afraid to take a chance. Now is not a good time to start a business.

Business presents too many headaches. It's difficult to succeed.

People in ghetto areas are reluctant to buy from anyone since they have been tricked so many times.

If you sell something and collect a deposit, it is difficult to collect the balance since the people do not have the money.

Fear of being rejected by prospective customer expressed.

Initial effort is not made for fear of being turned down.

Students have experienced so much failure that they now lack confidence.

Dissatisfaction with the Project:

Students felt that the businesses suggested were demeaning. (Selling without having a large store meant peddling. Service industries meant taking care of other people's needs and being subservient to them.)

Students did not believe the project was real. They had been falsely promised things many times so they now lacked faith.

Minority group students do not believe that they will curry favor with the instructor by volunteering, so neglect to do so.

Desired starting at the top, and did not want to be bogged down by a small business.

The students had higher aspirations than small business could offer.

As a result of these findings, it becomes apparent that new approaches must be sought. Suggestions which might start as a stepping stone are the following:

Objections raised by the students must be understood so that satisfactory solutions can be found to meet them.

Student interests and expectations must be understood if the project is to be presented to them so that it meets their expectations.

Modest goals must be shown to be acceptable.

It is important to orient student needs by sincere interest in the student, through example and deed.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Orientation of Architectural Technology Curriculum Design Problems with a View Towards Motivation of Minority Group Students

by

Douglas Behrens, Architectural Technology
New York Community College

PURPOSES AND OBJECTIVES:

The purpose of this project was to elicit motivation from all students, especially minority group students, by orienting various aspects of their Architectural Technology course work, which involves the elementary analysis and solution of urban and architectural problems, towards pertinent topical problems of urban student concern. It was felt that this approach would increase the probability of success of minority group students by relating course work to areas of relevant personal experience and interest, as well as involve them in application of their educational experience to the analysis and solution of their own community problems.

DESCRIPTION OF PROJECT:

It was decided to initiate this approach with two sections of a Site Planning Course and Architectural Design course. Initially, it was thought to separate the classes into teams in accordance with the geographic location of their residences and charge them with the responsibility of generation of an acceptable problem that would be relevant to their neighborhood and could be amenable to solution via architectural site planning analysis and treatment. Unfortunately, it was found that the geographic spread of student residences prohibited a neighborhood team approach. In lieu of this, an area was selected on the West Side of Manhattan, specifically, a five acre tract in Central Park bordering the western periphery of the park. The students were presented with a problem of developing the area for community use. The initial student reaction was somewhat unexpected, that is, subsequent to preliminary reconnaissance of the site many presented written reports that ranged from mild reservation to outright rejection of the validity of the problem, in that community use should not supersede the destruction of the natural beauty and scenic oasis quality of the Park with more concrete and glass. The problem was then altered to one of optimum utilization of the natural site with minimum alteration, thus integrating into the existing site a one-story modern structure housing a community children's library.

The design course problem was one of renovation of an existing four-story brownstone to house a community museum which would provide cultural expression for the community. It was felt that this problem not only was an opportunity to beautify the community but allow the student to express their identification and aspirations for it by allowing active participation in initiating and implementing a positive change within it. The follow-through on this project will take place in the Spring 1972 semester where the student will develop a complete set of architectural and mechanical working drawings for his individual solution to the problem. He will further participate in the analysis of alternate methods of construction and selection and usage of materials of construction relative to his design.

FINDINGS AND CONCLUSIONS:

It was found that with the above community-oriented problems as the focal points of the respective courses their relevance aided in the learning process while serving as the vehicle for development of architectural technology fundamentals and techniques.

Extended follow-up program is planned with continued involvement of the student's project in additional courses providing continuity between course work and allowing the student to complete all phases of his initial design concept. Further evaluation of this project is anticipated at the end of the Spring 1972 semester.

ACKNOWLEDGEMENT:

I would like to gratefully acknowledge the cooperation and assistance of Professor G. Rusu, Department of Architectural Technology, New York City Community College, who helped coordinate and implement the many component aspects of this project.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Counseling and Tutoring of Disadvantaged Students

by

George J. Cavaliere
Mechanical Technology Department
New York City Community College

PURPOSE AND OBJECTIVE:

To develop a technique to get many disadvantaged students through the first semester's work of the Design Drafting Program by special counseling and tutoring.

DESCRIPTION OF PROJECT:

The project consisted of the following:

1. Select, at random, ten disadvantaged students who would be willing to become part of the project. The distribution of the students used in the study was seven Puerto Rican and three Black. One of the Puerto Rican students was a female.

2. Interview all participants to determine where help was needed.

3. Personally contacted professionals who could help solve some of the problems presented. This involved faculty of students in the study, counselors, Director of Tutorial Program, members of the Remedial Program and myself in the areas of Mathematics and Engineering Drawing.

4. Scheduled a minimum of one private meeting per week with each participant to determine progress and to learn of any new problems which may have developed.

5. Arranged two rap sessions for students to talk out some of their problems as a group.

6. Evaluated project by obtaining the participants' opinions and reactions to this kind of project.

FINDINGS AND RESULTS: Listed below in tabular form are some of the findings and results of this study:

ITEM / NAME	ALMA, Hector	CONYERS, Thomas	FARIA, Carmelo	GARCIA, Maria	GOMEZ, Carlos	IGARTUA, Kurv	JIMENEZ, Guillermo	RESTO, Ivan	RUSHING, Kenneth	WILSON, Charles
1. Age	20	19	20	18	20	21	20	19	19	21
2. High School Diploma	V	G	G	G	G	G	G	G	G	V
3. Number in Family	6	8	9	6	4	5	6	7	8	7
4. Number Older Brothers or Sisters	3	4	0	0	1	1	2	0	0	3
5. Number of Family Attended College	2	1	0	0	1	0	2	0	0	0
6. Hours Worked/Week	0	12	10	20	10	40	40	0	10	16
7. On Grant, Scholarship, etc.	Y	Y	Y	N	Y	N	N	Y	Y	Y
8. Success in the DD Program	R_m	P	R_m	W	P	R_s	P	F	P	W
9. Areas Where Help Was Given	M C	N	M C	N	C	C	C	M C	C	N
10. Student's Future Plans	C	C	C	T	T	C	C	D	T	T
11. Project Helped to Keep Student in College	Y	N	N	N	N	Y	N	N	Y	N

Legend: (Row number + letter in box)

2V - Vocational Diploma
2G - General Diploma
7Y - Yes 7N - No
8P - Passed All Subjects
8F - Failed All Subjects
8W - Withdrew from all Subjects Before End of Semester
$8R_m$ - Failed Remedial Math

$8R_s$ - Failed Social Science
9M - Mathematics Tutoring by me
9N - Little or no Help
9C - Counseling Help
10C - Continued in Program
10T - Transferred to a Different Program
11Y - Yes 11N - No

DISCUSSION OF RESULTS AND CONCLUSIONS:

From the results obtained in this small and brief study only trends are indicated and no drastic conclusions are made here. The results do indicate the following about students from economically deprived backgrounds:

1. They work an excessive number of hours per week because they need the money.

2. They are very often the first member of their family to attend college.

3. They all come from relatively large families.

4. They usually are the oldest or very near the oldest child in the family.

5. They share in the support of the entire family.

6. They all need much help and guidance because many lack confidence in their ability to learn.

The results also indicate:

1. That conventional solutions (those that seem to work with us) used to help these students do not seem to work well. Many different methods should be tried, studied, and evaluated to determine a meaningful solution to this problem.

2. That money should be found to give to these students so that work after school is not necessary, and that more time could be devoted to study. This might improve their chance for student success.

3. That the faculty time required to help this kind of student is extensive. It is suggested that faculty attempting a project like this should use small groups.

STUDENT REACTION: All participants found the project helpful, and recommended that it be continued and expanded. Three students indicated that they would have dropped out of college if it hadn't been for this program.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

College Business Math - Supplementary Classroom Manual

by

Patricia Clis, Assistant Professor, Marketing Department
New York City Community College

PURPOSES AND OBJECTIVES:

1. To assist open admission students with limited reading skills to understand and interpret a college business math textbook.

2. To reinforce presentation phase of classroom lesson by providing the material needed for this.

3. To afford the teacher an opportunity to determine students' need for additional assistance and provide this assistance.

4. To provide students with a tool which assists them with their homework assignments.

DESCRIPTION OF PROJECT:

The development and preparation of a College Business Math Supplementary Manual which correlates classroom material with textbook material and homework assignments.

FINDINGS AND CONCLUSIONS:

During the Fall 1971 semester, I used the Supplementary Manual in one class of MK 144 College Business Math. Since I did not have a second class to use as the control group in the experiment, my conclusions include evaluations of performance based on comparisons of current results with those of classes in previous semesters.

CONCLUSIONS:

1. Teacher was able to determine the extent of lesson comprehension on the part of students while they were working on problems in Manual in class.

2. Assistance was provided to students on the basis of their needs for this while they were working on Manual problems.

3. Students were afforded the opportunity to question the teacher in their areas of difficulty in lieu of attempting a homework assignment with no one to assist them with problems encountered.

4. Lesson presentation plus supplementary material reinforcement resulted in better understanding of lesson.

5. Improvement in understanding of text material was evident.

6. Completion of homework assignments was facilitated.

7. More students did their homework and to a higher degree of accuracy.

Results in this one class of Business Math in terms of their understanding, improvement and grades of students showed that continued use of the Supplementary Manual is indicated.

NEW YORK CITY COMMUNITY COLLEGE
The City University of New York

COLLEGE BUSINESS MATH

INSTRUCTIONAL PROBLEMS

DIVISION OF COMMERCE
MARKETING DEPARTMENT

PREPARED
BY
PATRICIA CLIS

SEPTEMBER, 1971

TEXT: COLLEGE MATHEMATICS FOR BUSINESS - J.M. HANNA

HOMEWORK ASSIGNMENTS

UNITS	PAGE NUMBER	ASSIGNMENT	
1. ACCURATE TOTALS	9	A	(1-8)
	10	D	(1-3)
	12	C	
2. ADDITION AND SUBTRACTION	15	A	(1-5)
		B	(1-3)
		C	
	17-8		(1-20)
3. BANK DEPOSITS AND WITHDRAWALS	21	A	(1-2)
		B	
	24	B	
4. BANK RECONCILIATION	28	B	
	29	A	
	30	B	
5. MULTIPLICATION AND DIVISION	33	A	(1-10)
	34	B	
	35-6		(1-20)
6. FRACTIONS	39-40	A	(1-30)
	40	B,C	
7. MIXED NUMBERS	43	A	(1-3)
		B	(1-8)
	45-6		(1-20)
8. RATIOS	49	A	
	50	C	(1-3)
		E	
9. THE DECIMAL POINT	53	A	(1-30)
	54	B	(1-10)
		C	
	56	B	(1-10)
10. DIVISION APPLIED TO DECIMALS	59	A	(1-8)
	60	C	(1-8)
	61	A,B	
	62	C,D	(1-7)
12. SHORT CUTS IN MULTIPLICATION AND DIVISION	69	A	(1-46)
	70	B	(1-14)
		C	
	72	C	(1-10)

UNITS	PAGE NUMBER	ASSIGNMENT
13. PERCENTAGE	75	A,B (1-9)
	76	C (1-22)
	78	C (1-10)
14. TRADE AND CASH DISCOUNTS	81	A (1-20)
	83	A (1-9)
		B (1-3)
15. USING PERCENTAGE TO COMPARE NUMBERS	87	A,B (1-6)
	89	A (1-4)
	90	D
16. THIRD PERCENTAGE FORMULA	93	A (1-10)
		B
	94	D (1-8)
	95	A (1-25)
	96	B (1-10)
17. PRICING MERCHANDISE	99	A (1-5)
	100	C (1-5)
		D (1-10)
18. INTEREST	109	A (1-20)
	111	A (1-10)
		B (1-5)
	112	C (1)
	138	C (1-3)
25. INSTALLMENT PURCHASES	142	D (1-5)
26. WAGES AND SALARIES	145	A (1-10)
	146	B (1-5)
		C (1-5)

OF AID TO YOU

The textbook for this course (MK 144) is College Mathematics For Business, by J. M. Hanna, which will be used for homework assignments.

This workbook, consisting of instructional problems, will be used for solving problems in class in order to further your understanding of the material presented in class. Once you understand the principles and master them, you will find it easier to complete your assignments.

Remember that math is a doing subject. It is important that you keep up with the class and your homework. Each day's lesson builds on the preceding one. If you are willing to work, you will learn without difficulty.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Student Prepared Film
"Construction Technology at New York City Community College"

by

Elliot Colchamiro
Department of Construction Technology
New York City Community College

Several objectives were considered in the production of the film described in this report. The primary objective was the production of an advertising or public relations film directed towards new students, particularly those from minority groups, in an attempt to help motivate them toward successful completion of their academic studies. By observing students much like themselves performing the same activities, marginal students might be motivated toward similar success.

Some other minor objectives are also worth mentioning in considering a production of this type. First, there is the great potential for stimulating student enthusiasm about what goes on within their own chosen department at College. Furthermore, a distinctly beneficial side effect could be achieved by showing the film to other potential minority group youths, not necessarily connected with the College. By viewing the film, these youngsters might be motivated toward similar goals. Parents also might be impressed after viewing the film, with "what our kids can do." Another interesting side objective is the fact that the group of students working on the production tended to consolidate into a productive unit which worked well together as a team, a relationship which could easily be transferred to helping each other in scholastic endeavors.

As an instructor, the most formidable challenge in this project was to consolidate a student group which would produce the final product. At the outset, each time I would ask a student personally, "How would you like to help produce a movie about your department?," he would invariably express little or no interest in the project. Comments like: "I don't know how to use a movie camera," "Why make a film?," and "I haven't got the time," were typical. It was tempting to abandon the effort as a "student production," and make the film myself. However, I felt that the film's impact would be much stronger if it could be said that it was totally produced by the students themselves. I therefore kept trying to attract student support.

By shooting a sample roll of film, myself, during a field class in surveying, I found the students very eager to see themselves on film. When they saw how simple movie photography is today, I found myself besieged by volunteers. This was the exact reverse of the negative response generated by merely talking about the film.

The student participants who ultimately produced the movie had to be organized into a functioning unit which could work together productively, independent of faculty leadership. Several meetings and discussions were held. First the general film format was explained. A super-8 production of 350 feet or so, consisting of 7 to 8 rolls of film edited and spliced together was the objective. While it was beyond our ability (both technical and financial) to make a sound film, it was generally agreed to add a taped sound track consisting of student narration and appropriate music.

The most difficult area of disagreement among the participants was the question of the form that the film would take. Students were asked: "If you wanted to show your buddies, or your girlfriend, or your family, what you do at school, how would you show them on film?" Several ideas were suggested, ranging from a serious documentary to a series of comic skits depicting College life. A compromise was agreed to, showing scenes of student activity in many of the laboratories, classrooms, field trips, etc., with an occasional comic bit, just for laughs.

Scenes were produced "on location" in the following areas: surveying field work, welding and steel fabricating laboratory, materials testing laboratory, wood laboratory, architectural drafting class, and estimating computation laboratory. In addition some scenes were included showing a building construction class on a field trip to a construction site. Finally, some general scenes showing classroom lectures and students taking notes at their desks were included.

A special effects gimmick using cartoon-style time-lapse photography was added. The particular scene shows an instructor (played by a student) lecturing on "beam design." On the blackboard is shown a simply supported beam loaded by a single vector arrow depicting a concentrated load. By shooting one frame at a time, the students were able to create the illusion of a moving vector cutting across the beam, dropping down to the floor, while the beam itself deforms, splits in two and tumbles down off of its supports. The effect is remarkably lifelike, and while it only lasts for about 30 seconds on the screen, the students spent about an hour and a half filming it.

At present the film is completely edited, spliced and ready to show. The sound track is in the "taping" stage and expected to be ready within a matter of a week or two. It is anticipated that by mid February of the Spring '72 semester, the production will be complete with sound track.

But even before the finished product is ready, it should be noted that some of the objectives have already been met. A group of students have worked well together as a team. They have produced something about which they thought they knew nothing at all. They have done something themselves, and are quite excited and proud. They have produced a film, an achievement they never thought possible just a few short months ago.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Self-Instructional Technical Mathematics Workbook

by

Louis Csajko, Machine Tool Technology
Voorhees Technical Institute

The purpose of this project, "A Technical Mathematics Workbook," is to motivate and self-instruct the disadvantaged student deficient in mathematics. One of the weaknesses of the disadvantaged student is his inability to handle or cope with mathematics. This project attempts to present to the student problems which are meaningful on a realistic technical and/or engineering level. Its scope is limited to the treatment of, and the understanding of, basic fundamentals and the methods of computing problems, and aid in analyzing a problem in order to solve it. Though only a pilot project, it should prove practical and useful, and may, at a later date, be extended to include other technologies.

Problem presentation originates in the form of a sketch or a print. Using conventional textbook form, each problem presented illustrates and explains the mathematics involved, how to analyze the problem, a practical method for solving the problem, working out and arriving at a solution to the problem, plus a method of checking or proving the answer or solution. Additional problems, similar in nature, (in "quiz" form), are given, with calculations needed to solve them and arrive at an answer. The student is expected to work out these additional problems in order to enhance his learning.

We, as educators, have seen at first hand the devastating effects of poor manipulative skills in both arithmetic and basic mathematics efficiently and productively. Student weaknesses may have arisen from a lack of knowledge and/or a lack of appreciation of the importance mathematics plays when one embarks upon a career and has to function daily with numbers.

Understanding the fundamentals of mathematics, illustrating and explaining mathematical principles are major causes for low achievement. Past cases studied have revealed that a brushing up of mathematical principles or a review of similar problems is all that is required to do better. It is the expressed desire that the effort put into their workbook will help and aid the student in understanding that a knowledge of mathematics is needed and to be able to apply, is practical and essential in industry.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

To Develop Effective Techniques and Instructional Materials for a Heterogeneous Intermediate Pitman Shorthand Class at New York City Community College

by

Ivy Y. Dabiri
New York City Community College

PURPOSES AND OBJECTIVES:

A. To provide instruction for students at various levels of achievement.

B. To create instructional materials which could be used effectively to bring about learning success in a heterogeneous intermediate shorthand class.

C. To provide for flexibility of instruction to enable students to achieve at their greatest potential.

D. To reduce the attrition rate of the low-level achievers in the secretarial skills area.

DESCRIPTION OF PROJECT:

Students in this particular group are freshmen who have had one to two years background in Pitman Shorthand at the high school level. The preliminary placement test revealed varying degrees of shorthand theory and dictation-transcription weaknesses. Theory review at various levels of intensity as well as dictation speedbuilding are necessary in order to prepare students for subsequent courses within the curriculum.

A. Procedures for Identifying the Various Groups Within the Class

The following pre-tests were given to students:

1. Evaluation of shorthand skill by the Secretarial Science Department - Spring, 1971

   50-word theory test and a dictation-handwritten transcription test, dictated at 60 words a minute for five minutes of continuous dictation. This pre-test was given to all incoming freshmen with a background of Pitman shorthand. (The students assigned to my class rated poorly on this pre-test and, therefore, were placed in the beginning shorthand group.) Students who pass this test are placed in a Transcription I class.

2. Teacher evaluations during the initial sessions of the Fall semester:

   a. evaluation of records and information elicited from students revealed that student's previous shorthand study ranged from six months to three years.

   b. a 25-word theory test

   c. two letters dictated at 40 and 50 words a minute for handwritten transcription. (Students were asked to transcribe one out of the two letters dictated; preferably the one at the higher speed.)

As there were two Pitman sections, on the basis of previous shorthand experience and the above tests, some students were shifted into a beginning shorthand (theory) group, and the class for which this experiment was devised became an Intermediate Pitman Shorthand class.

3. Following the first three weeks of structured lessons, the students were again tested to determine their level of skill within the group. The tests were as follows:

a. Dictation of six letters, each consisting of approximately 125 words, dictated at the following speeds: 50, 60, 70, 80, 90 and 100 words a minute. Students were asked to transcribe in longhand the highest speed letter which they felt capable of transcribing accurately, and if they were in doubt, they may transcribe two letters.

b. A 50-word theory test, based on theory reviewed in class and written for homework assignments.

c. An English test to determine the student's ability to use correct verbs and word endings.

d. A spelling test based on spelling words which were studied as part of the homework assignments and reviewed in class.

From the results obtained in the above evaluations, three groups were formed:

Group A - Weak in theory; dictation speed goals: 50 to 60 w.a.m. - 6 students

Group B - Theory fairly good; dictation speed goals: 70 to 80 w.a.m. - 4 students

Group C - Theory good to excellent; dictation speed goals: 90 to 100 w.a.m. - 9 students

As an incentive, students were told that if they were able to build their speed to a point where they could pass three final testing of 80 words a minute of continuous five minutes dictation with typewriter transcription, they would be placed in an advanced transcription class in the Spring semester. Students were also advised in the event that they should fail to go into the advanced transcription class, they would still do well in achieving a good skill.

B. Learning Activities

1. Short structured theory lessons in which entire group participated. (Usually requiring 10 to 15 minutes at the beginning of the class period and followed by student self-evaluation.)
2. Teacher-dominated intensive theory instruction, drills, and previews of letters containing words in which the theory principle was represented. (This part of the lesson was given to students in Group A whenever the programmed theory workbooks were not used.)
3. Use of enrichment materials: tapes, records, overhead projector, shorthand/spelling flash cards, programmed theory workbook.
4. Students working together at group levels.
5. Average and above-average students assisting students achieving at a slower pace.
6. Class dictation and speedbuilding dictated at various speed levels to meet individual needs.
7. Pre-transcription and transcription skills: grammar drills and exercises; punctuation drills and exercises; timed typewriting from printed matter, from familiar shorthand plates, from familiar homework notes, from dictation.

C. Self-Evaluation

Students were required to evaluate themselves daily in terms of their weaknesses, strengths and needs in the following areas: theory, dictation speed, oral and written letter transcription, five-minute dictation transcription, and English skills.

D. Remediation and Counseling

1. An extra class period for remediation was conducted once a week for all group levels. Students concentrated in the area of need as shown on their self-evaluation sheet.
2. Each student was counseled at least once a week on a one-to-one basis either during the transcription periods or during the extra period provided for remediation.

FINDINGS AND CONCLUSIONS:

Of the six students originally placed in Group A, one advanced to Group C, whose end-term class goals were 80 to 90 words a minute for five minutes of continuous dictation, and four students advanced to Group B with end-term class goals of 60 to 70 words a minute for five minutes of continuous dictation. One student dropped the course after sporadic periods of absences.

Of the four students in Group B, one student advanced to Group C and achieved the end-term class goals, and three students remained in Group B.

Of the original nine students in Group C, one went into Group B and the rest were able to achieve the end-term class goals.

Final Examinations

Final examinations, as dictated by Department standards, consist of an average of three 50-word theory tests, and an average of either three five-minute dictation takes at 50 words a minute for students advancing to Shorthand II or an average of three five-minute dictation takes at 80 words a minute for students advancing to Transcription II.

All of the students passed the theory tests and the five-minute dictation (typewriter transcription) tests with the following averages and speed levels:

	Average of Theory Tests	Average of 5-Min. Dictation 50 W.A.M.	Average of 5-Min. Dictation 80 W.A.M.
Group C	7 students - A	1 student - A	7 students - A
(9 students)	2 "		1 " - B
Group B	2 " - A	2 " - A	
(9 students)	5 " - B	6 " - B	
	2 " - C	1 " - C	

I plan to follow up the students in this class by:

1. Periodically checking with their teachers as to their achievement;

2. Meeting with them for counseling, for any remediation they might need, and for interest and support.

SLM 104.2
INTERMEDIATE PITMAN

SAMPLE LESSON

<table>
<tr><th>DATE</th><th>TIME</th><th>GROUP A</th><th>GROUP B</th><th>GROUP C</th></tr>
<tr><td>10/27
N1002</td><td>3 min.</td><td colspan="3">ALL GROUPS
Evaluate theory of previous class lesson and written for homework
(See attached word list) (Students to enter on Self-Evaluation Chart)</td></tr>
<tr><td>12:00
to
1:50 pm</td><td>5 min.</td><td colspan="3">ALL GROUPS
1. Read and trace homework - Lesson 24 - Theory Practice, Letter 1
" 25 - " " Letter 2
" 26 - " " Letter 3</td></tr>
<tr><td></td><td>10 min.</td><td colspan="3">2. Dictate Homework - Lesson 24 - Letter 2, 70 wam (students in Group A to read back)
Lesson 25 - Letter 3, 80 wam (" " " B " " ")
Lesson 26 - Letter 2, 90 wam (" " " C " " ")</td></tr>
<tr><td></td><td>10 min.</td><td colspan="3">A. Theory Presentation - (See page 24 of prepared theory supplementary material)
B. Short Evaluation - 5 or 6 theory words</td></tr>
<tr><td></td><td>20 min.</td><td>GROUP A
Teacher Dominated
Speedbuilding - 60-70-80- (70) wam.
(Preview theory words)
(See prepared letters based on theory presentation)</td><td colspan="2">GROUPS B & C
Speedbuilding Tapes (80-90-100 wam)
(Distribute preview words - see attached)</td></tr>
<tr><td></td><td>2 min.</td><td colspan="3">ALL GROUPS
Students to evaluate speed accomplishment and enter on self-evaluation chart.</td></tr>
</table>

DATE	TIME	GROUP A	GROUP B	GROUP C
10/27	5 min.	ALL GROUPS Short Form Drill - Transparency #3 - Overhead Projector Goals: 1. spontaneous recognition and reading of short form plates 2. spontaneous writing of short forms dictated		
	10 min.	Punctuation Drills - (Noun in Apposition)		
	8 min.	Continuous Dictation - 5 short letters -- 1 at 60 wam; 1 at 70 wam; 1 at 80 wam; 1 at 90 wam; 1 at 100 wam (unpreviewed) Text: STEPS TO SUCCESS - pp. 11-13, Letters #32, 33, 34, 35, 37		
	8 min.	Letters to be read back in class prior to transcription		
	15 min.	Transcription of one letter at the highest speed student is able to take and transcribe with 100% accuracy. (Letter to be typed in Modified Block Form.)		

PITMAN SHORTHAND REVIEW

temple
remittance
to take care of
subscription
mailed
stencil
bottom
in every
enclosed card
in the future
we shall continue
pack
entertainment
bulletin
I am sure
that we will
I need not
remind
your comments

Clinton
and we like
believe that
friendship
cooperative
relationship
any one of our
divisions
assist
you have
primary
assistance
guidance
confront
your business
we know that
if we can
thus
profit

Captain Fenton
National Newspapermen's Association
annual
dinner
this year
Hotel Wilmington
Board of Directors
theme
one of the
country's
most-quoted
should like
speaker
occasion
delighted
expenses
Memphis
honorarium
(look up definition)
to accept
please let me know
whether
you can be

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

The Relationship Between Academic Achievement, Job Performance, and Job Satisfaction of Minority Group Students

by

Allan DeGiulio, Dean, Saint Joseph College
(formerly with New York City Community College, CUNY)

PURPOSES AND OBJECTIVES:

The New Careers model is a relatively new strategy designed to provide remedies for many current societal problems. Central to the concept is the provision of meaningful entry-level jobs which are part of a comprehensive, explicit career ladder, with ascension to higher positions (and ultimately professional status) facilitated by carefully designed, on-going, job-related training and education. The system assumes close linkages between employers (mainly in the education, health, and welfare fields) and educational institutions, with colleges providing the formal accreditation necessary for progression to successively higher positions.

Paraprofessionals are primarily of minority group origin and represent the lower end of the socio-economic scale. They serve a three-fold purpose--in addition to uplifting themselves, they free the professionals for tasks more closely related to their training, and aid the agency in more closely relating to its clientele.

With the proliferation of "New Careers" and other types of work-study programs, as well as the thrust for higher education for the poor, the purposes and objectives of this project were to investigate the relationship between the paraprofessional's perception of his work experience, his supervisor's evaluation of his effectiveness on the job, and his proficiency as a college student.

It was felt that if positive correlations were found to exist between academic achievement and job-related variables, then recommendations might be in order relative to the structure and delivery of community college education.

DESCRIPTION OF PROJECT:

The sample consisted of eighty-seven New York City Social Services Department paraprofessionals who were students in the Community Services curriculum at New York City Community College. Brayfield and Rothe's Index of Job Satisfaction was personally administered to the students. A job performance rating questionnaire, approved by Social Services Department supervisory staff, was completed on each paraprofessional by his immediate superior. Academic achievement was determined by examining the transcripts of the students in order to determine grade point average.

Both sets of questionnaires received a total score, and were correlated with grade point average. The Pearson Product Moment Correlation Coefficient was calculated to provide an index of the relationship between each of the sets of variables, with .05 selected as the significance level.

FINDINGS AND CONCLUSIONS:

A positive correlation was found to exist between job performance rating and grade point average. This would seem to reinforce the contention that an individual described as performing well on the job would have similar successful experiences in college courses. Conversely, that poor work performance would be accompanied by low academic achievement.

A positive correlation was not found to exist between job satisfaction and grade point average. It seems necessary to conclude, therefore, that happiness on the job is not a causal, or related, factor in academic achievement. It has been hypothesized that disadvantaged students are highly motivated due to an over-riding fear of failure and the attendant consequences thereof, and that they need not enjoy their work; this finding would seem to confirm that supposition.

A positive correlation was found to exist between job performance and job satisfaction. This finding seems to bear out that body of literature which contends that there is a significant relationship between job attitudes and productivity.

Among the recommendations that might be generated as a result of this study's findings is that, for disadvantaged students, the most effective educational design is one which recognizes their work experiences and relates subject matter to those experiences. Also, if as has been shown, there is a significant correlation between achievement on the job and achievement in an academic setting for paraprofessionals, then a logical next step would be to suggest that a well-coordinated pattern of work and study would be an appropriate arrangement for many other types of students, particularly those whose educational backgrounds are relatively undistinguished.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Problem Approach to the Performance of Laboratory Experiments

by

Professor Arthur E. DelGiorno
New York City Community College

In laboratory courses in Electrical Technology offered in the community colleges, technical institutes and other two-year, post-high school curricula, students are usually distributed instruction sheets or use a laboratory manual to perform the required experiments. The instructions are usually quite detailed and the student is required to follow them explicitly. This method of presenting the instructions is often referred to as the "Cook Book Method." He takes data, as per instructions and then, when finished with the experiment, writes a report from the accumulated data.

This approach is not very stimulating and requires very little technical knowledge or reasoning on the part of the student. His attitude is very often lackadaisical and leads to errors in taking data that are not discovered until he sits down to write the report. This seems especially true of students who have been educationally handicapped. They have had little stimulation in their precollege education and this is just a continuation of methods that cry out for a new approach. The student learns little from this type of laboratory exposure. It is my contention that if the experiment was offered to the student in the form of a problem, greater learning would result. This will be expanded later in this report.

This project involved a 1st semester laboratory course in Electrical Technology offered in the Evening Division of New York City Community College. The students are given instruction sheets for performing an experiment at each meeting of the class. They are asked to take them home and study them, and come in at the following meeting prepared to perform the experiment. The instructions are written in the "Cook Book" form.

The project was carried out in the Fall 1971 semester. There were 12 students in the class of which 6 were white, 5 black, and 1 Puerto Rican. After some casual questioning concerning their educational backgrounds, 3 of the black students and the 1 Puerto Rican student were chosen to use the "Problem Approach." Two of the 12 experiments performed during the semester were chosen. They were rewritten as problems to be solved in the laboratory. The experimental group of 4 students were issued the rewritten experiments. Attached to this report are copies of the instructions that were distributed to the 8 student control group plus copies of the experiments that were rewritten using the problem format. The students had studied the theory involved in the experiments in a theory course prior to performing the laboratory experiments. On the fifth meeting of the class, the experimental group was issued the rewritten experiment entitled "Voltmeter Sensitivity & Accuracy." The remainder of the class was given the experiment sheets that are normally used. Both groups performed the experiment at the sixth meeting.

It was immediately apparent that the activity of both groups was quite different. The control group, using the "Cook Book" instructions, connected the circuit from the diagram supplied and routinely recorded the data. The experimental group seemed to show much more interest in what they were doing. There were numerous questions asked and a number of different approaches to the problem were presented. As the instructor, I was kept busy approving diagrams and offering suggestions concerning the approach used by the different individuals in the experimental group. On reviewing the reports, which were turned in the following week, it was obvious that the experimental group showed more interest and had a better grasp of the object of the experiment.

At the seventh meeting, the same procedure was followed in an experiment entitled "Parallel Circuits." The response by the experimental group was similar to the previous exposure to the problem approach. This time the experimental group seemed to go about performing the experiment in a more systematic and logical manner than their first exposure.

Although the number of students involved was limited, and the number of experiments used limited, there seemed to be clear evidence that the problem approach has much to be desired. There was much more individualized and varied activity by the experimental group. Greater interest was observed and each individual seemed to feel that he was making a new discovery. When I asked each member of the experimental group to compare the two methods used for performing the experiments, the response was unanimously in favor of the Problem Method. They indicated that it was more interesting and that they learned more from this approach.

It will be noted that I waited until the fifth week before initiating the Problem Method. This is because the course was the first laboratory course that the students were exposed to. A few weeks are required to orient the students to the equipment and procedures used in the laboratory. I feel that after about the fifth week, all the remaining experiments could be performed using the problem approach. In succeeding laboratory courses it could be used for all the experiments.

Little has been done with this method as the Cook Book method is so imbedded in the experiments used in laboratory courses that it is difficult to bring about a change. It will be noted that a great deal of work would have to be done to rewrite all the experiments offered in laboratory courses. The results seem to indicate that a more extensive study should be initiated. This method should be tried in other laboratory courses and when fully tested might well replace the traditional laboratory experiment approach used in post-high school curricula today.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM

To Develop a Counseling Program for Freshman Students in the Business-Secretarial Area at Westchester Community College

by

Anne Marie Dragowits, Assistant Professor
Westchester Community College

PURPOSES AND OBJECTIVES:

The main purpose and objective of my project was to help disadvantaged students or students with adjustment problems to succeed in college by aiding them with their academic, curriculum, and personal problems or referring them to the proper place for help. Our college has just begun its open enrollment program and I feel that my project will greatly aid, not only regular students, but especially open enrollment students for whom college is all too often an overwhelming experience.

DESCRIPTION OF PROJECT:

I began my counseling program by obtaining the names and addresses of the 92 freshman students in the business-secretarial program, and also the hours of the week in which they were free. I then mailed each student a letter explaining that I was innovating a counseling program for students in the business-secretarial area, and I gave each student an appointed time to come in to see me. Students who had immediate problems were told to feel free to come in to see me at any time. I set up a fixed number of appointments each week so that by the first week in January, I had seen each student at least one time.

Most of the problems the students have concern poor study habits, family problems, being in the wrong curriculum or in the wrong school, working while going to school, etc. When the student has a problem I feel I cannot help him with, I set up an appointment for him with the proper counselor, chairman, or professor.

To aid me with my project, I received some help from the guidance counselors. I was given permission to look into students' files if I thought that would help me with solving a student's problem. The counselors were also willing, when they had the time, to handle efficiently any students with problems who I referred to them.

FINDINGS AND CONCLUSIONS:

Judging from what students have told me, I feel that my project was worthwhile in that I did help some students to solve their problems. Of course, I have no way of actually measuring the extent or degree to which I helped these students. My project did make clearer than ever, the need for more counselors in our school, especially with the extension of our open enrollment program in the coming years.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

To Develop Learning Materials for Beginning Shorthand Students to be Used in a Learning Center Currently Being Developed at Westchester Community College

by

Irma Green
Westchester Community College

PURPOSES AND OBJECTIVES:

1. To help the slower student who may get discouraged when others in the class are progressing more rapidly. This material can be used in the privacy of a reading room at the library either alone or with other students of her own choosing.

2. To give those students who are having a problem learning the material in the class time allotted to this activity the opportunity of reviewing what has been covered in class.

3. To give those students who have free time during the day the opportunity to go to the learning center and use the material for as short a period of time or as long a period of time as is available to the student. Many of the better students will enjoy using the materials to accelerate their learning.

4. The overall objectives are for each student to achieve a grade of 85% on a 100-word theory test at the end of the first semester and to be able to write shorthand which has been dictated at 60 wpm accurately and transcribe what they have written with 95% accuracy.

DESCRIPTION OF PROJECT:

Nine folders of materials are available for use. Each folder contains a cassette tape (60 minutes) and shorthand transparancies of the material on the tape. The material in each folder relates to a chapter in Gregg Shorthand for Colleges. Each chapter covers six lessons of new material. Eight folders cover the 48 lessons of new material. The ninth folder is a complete review.

On the cassette I have dictated words illustrating points of theory that were presented in class. Along with the words, I have dictated letters at 40 wpm. Each letter reinforces the learning of the theory as well as accustoms beginning shorthand students to write from dictation rather than copying plate notes. The impulse must come from the spoken word and not the written word, and the sooner the students get into this activity, the better the results. Specific sounds are repeated often in the letters for constant reinforcement.

A student can use the tape in many ways. If she thinks she knows the theory being presented, she can go immediately to the dictated letters. After each letter, she can stop and check with the transparancies for accuracy. She can then try the letter again or move on to another letter illustrating the same theory points. At the end of each tape, there are one or two letters that emphasize penmanship, so important to Gregg Shorthand. Students are made aware via dictation of the importance of writing outlines in proportion.

The last folder contains a cassette with letters that review all the theory presented. These letters are dictated at different speeds and are of varying lengths and also vary in difficulty of material, from very easy to more difficult. This folder is meant to be used the last six weeks of the term when heavy emphasis is on building speed. During the course of the term all students were encouraged to use the materials, some were given special assignments, and on occasion I used the materials in class to reinforce the proper way of using the materials.

FINDINGS AND CONCLUSIONS:

The results have been gratifying as can be attested to by a decrease in the number of dropouts at mid-term time and a decrease in the number of failures at end-term time. By and large, the majority of students who needed the extra practice liked the idea of my assigning definite work, rather than leave to them the decision of which folder to use, what in each folder to work on, etc. They preferred a structured approach.

Of primary importance, these materials enable beginning shorthand students to begin taking dictation after three weeks of starting the course. They like taking dictation and can now practice at speeds which are within their reach in the early stages of learning. This material differs from the commercially prepared materials on the market in that the student has a transparency against which to check every word dictated, and I have inserted learning cues for learning purposes (stressing words to be phrased, brief forms and emphasizing difficult theory points).

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

To Study the Effectiveness of Taped Cassette Lectures for Underachieving Students in the Industrial Processes Course

by

Max Klein
New York City Community College

PURPOSE AND OBJECTIVES:

1. To help underachieving students who either missed lectures, for reason of absence, or lack of understanding of lectures, or for review.

2. To get student feedback on effectiveness and value of such tapes.

DESCRIPTION OF PROJECT:

1. Set up the procedure to actively involve freshman class instructors in the specific subjects (MT 201 and DD 200), in seeking out and notifying needing students of the availability of taped lectures.

2. Use the Library as a base where students may use audio facilities, together with text material, in a comfortable environment.

3. Provide the Library with all materials needed, including texts and student response forms.

4. To summarize extent of use by students and determine the value of this type of teaching aid.

FINDINGS AND CONCLUSIONS:

1. Only three of approximately 60 students availed themselves of the self-help opportunity. Of the three, one of the students is reported to have dropped the course. The other two are reported to be "solid" C grade caliber students and cannot be considered as underachievers.

2. The courses covered by the first twelve lecture tapes were taught by three instructors. The project originator was not one of the instructors. Two of the instructors, however, were actively cooperating in terms of announcing the availability of the self-help, and urging students to partake.

3. The student participation on the basis of self-help did not materialize. The real underachievers simply did not seek and use available help. These facts were presented to the December meeting of the Institute. The members present voiced constructive suggestions for improvement. Consequently, a new course of action was undertaken. This involved preparing and making available cassette tapes in the subject areas taught by the project originator. A second semester class was involved in one of these and a freshman class in the second. The latter included underachievers who had little time to study or attend regularly because of personal and domestic problems, one case with a drug related problem.

Half of the second semester class was asked to volunteer to listen to the taped lecture. The second half was required to listen to the live lecture. The same test was given to both groups. The evaluation of the student responses indicate that students can gain from use of this type of teaching aid. This was also evident in the freshman group response.

A significant result is that the instructor-directed student use of tapes resulted in 15 out of 39 students participating as compared to three out of sixty in the self-help procedure.

Summarizing the conclusions, one can say that underachieving students do not seek self-help such as is provided by Library resources, and that these students need the personal attention of instructors. The instructors in such cases must be given the time and practical resources to carry out the task.

Attachment "A" - Memo from Prof. H. Ortiz

Attachment "B" - Page 6 from "Library Notes" of January 1972,
New York City Community College

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Attachment "A"

NEW YORK CITY COMMUNITY COLLEGE
of the City University of New York

300 Jay Street, Brooklyn, N.Y. 11201

January 3, 1972

Prof. Max Klein:

In regard to your continuance paper on the Summer Institute, I am sending you this letter to notify you on the result of the questionnaire regarding the lecture tapes available in the library for students who were absent for these particular lessons.

I am sorry to report that the majority of the students did not respond to the services on hand. As a matter of fact of the two classes, MT101 and DD200, I only had three students responding and of the three, two did go to the library, but only one made full use of one lecture tape.

If you have any further queries, I will be glad to supply any further information.

Yours truly,

/s/

Prof. H. Ortiz

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Attachment "B"
From "LIBRARY NOTES"
N.Y.C.C.C. Jan. '72

HARDWARE & SOFTWARE - NOTES & NEWS

Among the library's audio-visual resources are many items which are custom-tailored to meet the needs of students enrolled in some of the college's programs. The various kinds of equipment available are determined by the format selected. This article will discuss tapes which utilize the cassette-tape and the synchronized cassette/slide. As with all other A-V requests, these too are handled at the Information Desk.

Perhaps the secretarial students would like to test themselves on their shorthand skills. They can work at their own pace, be it 80, 90 or 120 w.p.m., by using the cassette-tape. These "Dictation" cassettes can be used in the library together with a portable tape recorder and set of headphones--all provided just for the asking.

For use with the same equipment, the Library offers a series of Business Law lecture tapes. These thirty tapes, produced by Western Tape Co., cover a wide range of topics including: contracts, personal property, sales insurance and wills. A complete list of the lectures is held at the Information Desk.

One of the latest additions to the tape collection is a series of twelve cassette tapes representing lectures in MT 101 - Industrial Processes. They are also usable for DD 200 - Manufacturing Processes. These tapes were prepared for students who missed lectures or who need reinforcement of their knowledge of the topics. Along with the tapes, students will receive the appropriate reference texts and an "Introduction, Comment and Question" form. Students in MT 201 - Methods Engineering have at their disposal tapes on "Numerical Control" and

"Production Lathe." These students will also receive the reference texts and a file folder of related informational sheets.

In the second group of tapes are those cassettes which are used in combination with specially prepared slides. The CinemaSound projector, housed in the microfilm area in the rear of the Library, gives users the opportunity to listen to the tapes while viewing slides of related diagrams. Slides advance automatically, activated by a subaudible pulse on the cassette tape.

MT 404 - Metallurgy II students can benefit from the 19 taped lectures by requesting one which they might have missed, reviewing those that need rehashing or even by previewing one in advance. As a study aid, users are also issued a question sheet for each of the lectures. The answers are also available. MT 306 - Materials Testing Laboratory students can use the synchronized cassette/slide as a review in preparing their Brick, Concrete, Steel and Wood reports.

All of the aforementioned tapes, which have been supplied by the respective departments, are just a sampling from the Library's growing A-V collection. There are qualified people in the Library who are anxious to show what else is available and how one might use these materials to his best advantage.

Kenneth Kaplan

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1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Determining the Availability of Films for Use in Counseling Minority Students into Various Technologies

by

Mark Kogan
New York City Community College

PURPOSE AND OBJECTIVE:

To provide the means for counseling large groups effectively, such as high schools.

To demonstrate what technology consists of, showing minority status men and women at work in various technologies.

DESCRIPTION OF PROJECT:

To contact various government agencies and private sources for the following film material:

Technological careers for minority members.

Review available material and select best.

FINDINGS AND CONCLUSIONS:

The film OP-TEC by Communico, educational division located at 1335 North Highway Drive, Fenton, Missouri 63026, is the answer to my search. The film is excellent since it shows minority students working in technicians' jobs, discussing the benefits of such work and the need for proper training such as the community college. It demonstrates mechanical, chemical, electrical, civil, plant and production technologies.

Another film, "American Engineer," demonstrates what the graduate engineer of a 4 year college can do. This may be a good film to show after the "OP-TEC" film since approximately 60% of community college graduates go on to the senior college. This film was obtained from JAM HANDY PRODUCTIONS, Division of T.T.P. Corp., 2821 East Grand Boulevard, Detroit, Michigan 48211.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM INDIVIDUAL DEMONSTRATION PROJECT

Student Utilization of Skills Center Hours

by

Louise B. Koscheva
New York City Community College

To meet the needs of the new (open enrollment) incoming students, many educationally disadvantaged, the Secretarial Science Department at New York Community College offered a Skills Center Hour for a particular class in which there was need for remediation. It was found that, in the shorthand classes, many of the students have reading and language difficulties since English is not their first language. Comprehension of simple directions was found to be weak and, directly applying to the beginning stenographic classes, it was found that the degree of lack of comprehension of existing vocabulary in the shorthand textbook was high and transcription of shorthand into longhand was affected by extremely poor spelling habits. Incoming first-year students are given an English Aptitude Test before being programmed into first semester shorthand classes, and based on the results of the English Aptitude Test, some are programmed for developmental English courses and do not begin shorthand until they have completed a semester of remedial English. In summation, the disadvantaged student in beginning shorthand classes, notwithstanding previous remedial English courses, has to cope with learning not only the shorthand language but, also, learning or relearning the English language. Faculty members teaching beginning shorthand courses were programmed for an extra hour of remediation.

The writer had been programmed for a Skills Center Hour to be offered to her Gregg Shorthand students. The purpose of the writer was to evaluate the utilization of the existing Skills Center Hours offered to beginning Gregg Shorthand students. The writer's objectives were:

1. To develop effective methods of motivating students to attend Skills Center Hours when the need existed;

2. To determine the tutorial needs for Gregg Shorthand I students;

3. To develop effective methods of remediation to fulfill student tutorial needs; and

4. To equip a Skills Center so that each disadvantaged student might utilize the lab (starting at his own particular level) and "let each become all he is capable of being."

A schedule totalling eight Skills Center Hours per week, Monday through Friday, had been set up for Gregg Shorthand I students with one of three teachers assisting at each particular Skills Center Hour. The eight hours were set up so that each student in each of the three Gregg Shorthand I classes could add to her program at least one Skills Center Hour a week since a common Skills Center Hour for each student in a particular class had not originally been scheduled into their programs. Two of the eight Skills Center Hours were two hours free of classes for all students. Announcements had been made verbally to the students in the three classes (with additional daily reminders), and notices of the Skills Center Hours had been posted on bulletin boards. It was, also, announced that a record of attendance would be kept. To attempt to overcome comprehension difficulty and to motivate attendance, the writer began by verbally announcing the Skill Center Hours; and, to conjure student involvement, wrote the reminder notes in shorthand on the chalkboard utilizing new theory and had a volunteer student of the day read the notice. The entire class was then called on to reread the "Class Announcement for the Day." Another faculty member sent out reminder sheets of the Skills Center Hours to her students together with a listing of volunteer student tutors. The writer, using a sheet prepared by her students indicating the hours they could attend the Skills Center, would indicate in writing on each test paper returned where the need for review existed and the Skills Center Hour that should be attended.

Responses or lack of response in class and results on exams determined the tutorial needs of the students. The program set for each Skills Center Hour was determined by the students' remedial needs of the moment. During the initial eleven weeks of the term, stress was placed on theory review with attention given to proportions, fluency in writing, automatization of brief forms, formulation of beginning phrases and increasing the speed of prepared shorthand plate reading. The Skills Center Hour was utilized primarily for dictation practice, speed building and stress was, also, placed on fluency in the reading back of individual notes, during the remaining four weeks of the semester. During the first eleven weeks, when theory was reviewed, each Skills Center Hour concentrated on the previous six theory lessons presented in class. Remedial assistance had been administered in the areas needed by the group present, as a whole, at each particular Skills Center Hour and on an individual basis when and if possible. (The writer would individually check shorthand forms in student notebooks and rewrite correct proportions during the Skills Center Hour.) Teaching methods included the conventional utilization of the chalkboard for theory review and live dictation together with transparancies prepared with Gregg theory on the overhead projector and use of multi-channel tapes on Norelco machines. Both the Gregg theory transparencies and the dictation tapes were correlated with the textbook used.

At the end of the semester, faculty and students were asked to evaluate the Skills Center Hours. Based on faculty and student evaluations at the end of the semester and the problems encountered during the semester by the writer, the writer has the following findings to present.

As was pointed out originally, shorthand students who needed the extra help provided at the Skills Center Hours were found to be weak in comprehension, vocabulary, spelling, and lacking in motivation and good home-study skills. (The writer was told of many existing situations that prohibited students from doing any homework or study at home. Students were either working full time and did not have time for homework or had full-time responsibilities at home.) Motivation to attend the Skills Center Hours was low. Attendance was higher at the first few sessions; however, after the first few class theory tests were administered, attendance had dropped. A greater amount of "A" category students interested in perfecting their abilities attended than did the "F" category (failing) students who needed all the remediation possible. Students who had consistently received failing grades on class theory tests did not double their work efforts and attend the Skills Center Hours but in frustration, reduced the amount of time and energy originally put into classwork and eventually withdrew officially or unofficially from the class. With an original enrollment in class of 40 students, the writer's final grade results and record of attendance at Skills Center Hours were as follows:

4	A's	(One[1] attended about 15 hours.)
7	B's	(Four[2] attended about 15 hours.)
1	C	
8	F's	(Five[3] attended about 15 hours; one[3] attended the first 3 hours.)
19	W's[4]	(One attended about 5 hours in the beginning of the semester.)
40	Total	

[1] She was originally a "B" student

[2] All were originally "C" students

[3] All were extremely weak in English

[4] By the end of the term, there were 19 withdrawals (all failing students)

The writer met with one other significant experience. Failure to achieve at a Skills Center Hour (while working individually on dictation tapes) is equal to a "double failure" to the student and an extreme deterrent to learning.

Based on faculty and student feedback, the following suggestions were made for the Skills Center Hours:

1. At least one common hour should be programmed into each student's schedule for each beginning shorthand class for the Skills Center, and attendance should be required.

2. A Skills Center Lab should be open from 9-5 daily and staffed with a faculty member, College Lab Technician and/or student tutors so that students in need of remediation could seek help in addition to the one scheduled Skills Center Hour on their programs.

3. Provision for individual tutoring should be made.

4. English remediation and instructions on how to use effectively the textbook, tapes, etc. should be included with theory review and dictation practice at the Skills Center Hours.

Based on the above-reported findings, the writer has the following recommendations:

1. At least one common Skills Center Hour per week should be mandatory.

2. To motivate students, students should be involved in planning the program for the Skills Center Hours by:

   a. requesting volunteer student tutors, and

   b. having students individually list areas needed for remediation, if known.

3. Individualize remediation at each Skills Center Hour by:

   a. making individual (or small group) assignments for each session based on an English Pretest, weekly theory tests, responses or lack of response in class, students' individual request forms, and

   b. grade individual work completed at each Skills Center Hour so that each student is aware of her progress.

4. To encourage additional review work and to provide a central area for the student who lacks the time or the facility for study at home, provision should be made for a Skills Center Lab to be open to the students daily during the college hours. The Skills Center Lab should be equipped with theory and dictation tapes and whatever other individual class review material has been prepared by the individual beginning shorthand teachers, placed in a file in the Skills Center Lab, and made available to all students, e.g. prepared

theory review transparencies and workbook sheets. The Skills Center Lab should be staffed with faculty members and/or student tutors whenever possible to render subject matter assistance and a College Lab Technician at all times to assist students with the available equipment. A lab open daily would, also, generate motivation by presenting students in the Secretarial Department with a central area in which to meet, exchange ideas, and help each other with their shorthand difficulties.

In conclusion, the writer is of the opinion, that effective utilization of the Skills Center Hours will take place when remediation at the Skills Center Hours is set up on an individual basis and each student is aware of her rate of achievement at each Skills Center Hour session.

Attachment "A"

REMINDER NOTE

Monday, November 1, 1971

TO: Students in Sten I Class - Section 7650

FROM: Professor ____________

RE: TUTORING IN STEN . I - GREGG

The names of the students who have offered to help you are listed below with the days and hours they are available and the location (Library in each instance):

Smith, L.	Weds. 9-10	1-2
Jones, S.	Mon. 10-11	2-5
	Tues. 9-10	
	Wed. 1-3	
Turner, B.	Fri. 10-12	

The Skills Center Hours when the three Sten. I teachers give extra help are listed on the Bulletin Boards.

Attachment "B"

FACULTY EVALUATION

TO: Secretarial Science Department DATE: December 3, 1971

FROM: Louise B. Koscheva

SUBJECT: SKILLS CENTER HOURS

In order to assist the Tutorial Committee for Skills in determining what are the department tutorial needs, please let me have your comments below by December 9.

1. What courses are you presently teaching? (Next to each course please list number of students requiring extra help.)

2. How many capable students in your classes (please estimate) would be interested in tutoring (possibly next term) at a Skills Center or on an individual basis?

3. Considering your present classes, what equipment, i.e. dictation tapes, etc. in a Skills Lab would be needed to provide your students with the extra help needed?

Please let me have whatever other ideas you may have for a Skills Center.

Attachment "C"

STUDENT EVALUATION

TO: Students in Gregg Shorthand I (SLM 104.1-7652)

FROM: L. B. Koscheva

SUBJECT: SKILLS CENTER HOURS

In order to assist the Secretarial Science Department in determining how a Skills Center can best service shorthand students, please let us have your comments below.

Number of times attended Skills Center: ______________

Number of hours of individual tutorial help: ______________

In your opinion, what are the pros and cons of the shorthand Skills Center Hour.

What do you suggest might be included in a Skills Center?

Please state any additional comments you may have regarding a shorthand Skills Center.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Operation "Career and Occupational Information" With a Minority Secondary-Feeder School by a Community College

by

Murray Krieger
Bronx Community College

PURPOSES AND OBJECTIVES:

Purpose

To increase the holding power of the career programs offered at Bronx Community College so that larger numbers of students enrolled in these programs will successfully complete their planned courses of study.

Objectives

1. To develop a year-round program with the secondary school cooperative education coordinators, college grade advisors, and guidance counselors to provide realistic occupational information to the students regarding the careers that can be developed through the curricula offerings at Bronx Community College.

2. To develop a year-round program of dialogue and articulation with the secondary-school cooperative education coordinators, college grade advisors, and guidance counselors of new course offerings or new curricula at Bronx Community College so that students can be provided with realistic information.

3. To provide the secondary-school cooperative education coordinators, college grade advisors, and guidance counselors with information pertaining to the academic requirements and capabilities necessary to develop careers through the various curricula at Bronx Community College.

4. To provide the secondary-school cooperative education coordinators, college grade advisors, and guidance counselors with information regarding the personnel needs of employers, current and projected, in the career areas of Bronx Community College curricula offerings.

DESCRIPTION OF PROJECT

Our initial effort was to determine the extent of knowledge about careers and occupations (that can be developed through the career-curricula at Bronx Community College) as well as the student capabilities needed to successfully enter the career possessed by the professional personnel at one of the important secondary-feeder schools in the Bronx area, Theodore Roosevelt High School. We met on separate occasions with the Cooperative Education Coordinator, College Grade Advisors, Guidance Counselors, and Home Room Teachers to obtain this input. We met with many of the Roosevelt students who have already submitted admission applications to determine the reason for their curriculum choice and the supportive information upon which they developed a career choice.

We met with members of the Board of Education, the Office of Admission Services of CUNY, and with members of the Board of Higher Education to determine the extent of career or vocational information provided to students who apply for admission to Bronx Community College.

We then developed a continuing program for all Roosevelt students which includes the active participation of Bronx Community College minority students enrolled in career programs, Bronx Community College minority alumni members, minority teachers at Roosevelt and Bronx Community College, and minority members from the business community actively employed in the Bronx Community College career-curricula areas.

Student assemblies; individual conferences; "Career Day Activities"; distribution of literature from business associations and organizations are included in this effort.

FINDINGS AND CONCLUSIONS

Findings

As a result of our new dialogue and articulation with the secondary-school personnel we found:

1. That there was a great deal of misinformation and imaginative concepts possessed by the professional personnel at the secondary-school regarding the requirements and needs of the careers and the capabilities needed by students to develop a career through the curricula at Bronx Community College.

2. That this misinformation and imaginative concepts were passed on to students, thereby providing them with unrealistic career goals.

3. That the students developed fantasy and unrealistic career information as a result of the misinformation provided to them--resulting in registering for the wrong curriculum.

4. That the secondary-school professional personnel lacked updated information about the occupations that can be developed through the career-curricula at Bronx Community College; and about the occupational outlook for these career offerings.

Conclusion

As a result of this effort, Bronx Community College is planning to develop an ongoing and continuing program with the secondary-schools; and to develop a funding proposal to implement this effort.

It is the feeling of Bronx Community College that such a program will reduce the number of dropouts at the college level; reduce the attrition rate; reduce the number of students changing a curriculum; and provide meaning to the student's self-interest and career objectives.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Proposal to Set Up a Program to Acquaint Students with Career Opportunities in Retailing (Stores and Buying Offices) with Special Emphasis on Minority Students

by

David Lang
Kingsborough Community College

PURPOSE AND OBJECTIVES:

1. To prove that there are many opportunities for minorities in retailing to advance to mid-management and top management.

2. To acquaint students with the type of positions and duties of each job.

3. Tie in project with part-time work, cooperative education programs and eventually full-time employment.

4. To tie in program with Retailing Department and DECA Club at Kingsborough Community College.

DESCRIPTION OF PROJECT:

1. Discussed project, its purposes and objectives, furnished each of the below mentioned with a copy of the project and requested

their cooperation, assistance, suggestions and referrals.

Mr. Oliver Klapper, Director of Career Counselling and Placement at Kingsborough Community College

Mrs. Marilyn Chernin, Assistant Dean of Students

Mr. Bill Rivers, College Discovery Director

Mr. Butler Dowery, College Discovery Counsellor and Faculty Advisor for Student Council

Mr. Joseph Rogers, Counsellor, Student Services at West End Center, Kingsborough Community College

Professor A. E. Berkowitz, Coordinator of Retailing Program at Kingsborough Community College

2. Contacted the following Minority Student Clubs at Kingsborough Community College, discussed program with their faculty advisors and requested an opportunity to explain program to club members.

Club	Faculty Advisor	Minority Group
Tainos Union	Mr. Nadal	Puerto Rican
Haitian	Mr. Otis Hill	Black
Bi-Lingual	Mr. Nadal and Mr. Pacheco	Spanish, Puerto Rican and South American
Independent Black Movement	Mr. Otis Hill	Black
Oriental Club	Miss Rhoda London	Oriental

I only was able to speak to Bi-Lingual Club, Tainos Union and some of the students in the College Discovery Program. The other groups were not sufficiently interested to invite me to speak.

3. Discussed program with all Retailing students.

4. Brought in three guest speakers who spoke to DECA Club and any other interested students:

Mr. Jack Lindner, Executive Vice-President of Mays Dept. Stores.

Mr. Robert McNamara, Personnel Director of Macy's, Kings Plaza

Miss Kirsch, Department Manager of Better Sportswear at Alexander's, Kings Plaza

5. Contacted stores and buying offices to find out what opportunities were available for part-time and full-time positions for minority students.

FINDINGS AND CONCLUSIONS:

1. Minority students did not seem particularly interested in the program.

2. Faculty Advisors and other college officials that I spoke to were not as helpful or cooperative as I anticipated. They could have made more of an effort to help me sell the program and bring me in to the clubs as a speaker.

3. Some of the students referred to me for part-time positions were not the type that I could honestly recommend. Most of those that I did send out on interviews never had the courtesy to report back to me.

4. I couldn't help but feel that I would have had better results if I were a member of the same minority groups that I spoke to.

5. In those instances where the Faculty Advisors were really interested, such as those in the Bi-Lingual Program and College Discovery--their interest was passed on to the students and I was able to carry out my program successfully.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Mathematics Tutoring Project Immediately After Class on Material Pertinent to the Student

by

Professor Solomon Lapidus, Assistant Professor
New York City Community College

PURPOSES AND OBJECTIVES:

To assist deprived and underachieving students in learning to use Arithmetic, Algebra, Trigonometry, and Geometry. To involve more knowledgeable students in this tutorial process if possible.

DESCRIPTION OF PROJECT:

To hold a mathematics workshop immediately before or after class, in the same classroom if possible, for a minimum of 30 minutes at each session. Material for discussion will be brought in by the students. Attendance will be optional. Students who need help will be encouraged to attend by the following means:

a) Told by instructor of need to attend.

b) Each class test to include approximately five mathematics problems, related to work in workshop, and worth five points. No points deducted for incorrect work, but correct work to give a student five extra points. Extra credit available only to students attending the workshop.

c) Knowledgeable students who attend and assist can also earn the extra credit.

FINDINGS (A) AND CONCLUSIONS (B):

(A) A one page arithmetic test was given to a 2nd semester design drafting class to determine areas of weakness. The students were told the exam was for evaluation only and would not be graded. The results showed the following areas of weakness:

1. Addition and subtraction of decimals. The students did not know that decimal points are located one immediately above the other. They lined up the rightmost digit and disregarded the decimal.

2. Multiplication of decimals. The students did not know how to find the number of decimal places in the final answer. When told that all the decimal places were added to find the number of decimal places in the answer, they accepted this as a revelation.

3. The relative size of decimals (larger or smaller) was a mystery. The students guessed at relative size; they really did not understand the meaning of a decimal number. This material was taught and tied in to the reading of decimal scales.

4. Short division, by numbers up to 5, was satisfactory, but not beyond 5. Long division was a real problem. The students were shown how to perform long division. They were also taught to use reciprocal tables, in order to avoid long division where possible.

5. Arithmetic, Algebra, and Trigonometry instruction sheets were distributed. These sheets were reviewed and explained. Three simple trigonometry problems were assigned. Only two of nine students even attempted the assigned problems. The problems were worked out on the board and fully explained.

6. One student brought in some exponent problems. He was having a math examination that afternoon and wanted some help. Two other students were present and they also showed an interest in the subject of exponents. Their interest and effort was gratifying.

7. A problem in friction using the formula $F = uN$ was brought up and a lively discussion ensued.

8. I got the impression that the weakest students might be reticent about exposing their lack of knowledge to their own professors. In collaboration with another professor, we offered to tutor each other's students to avoid the above. No students accepted this offer and only one expressed any interest. This student did not take advantage of this offer; he did not come forward.

(B) 1. Students showed very little interest in mathematics, unless they needed the information for immediate application or prior to a mathematics examination to be given in another class. They accepted corrected instruction in basic arithmetic only when they realized their areas of misunderstanding.

2. The promise of extra credit was insufficient reward to lure students to the tutoring sessions. After two or three sessions, they came only for solutions to immediate problems.

3. Most of the students were working at jobs on the outside, and many of these students were physically tired. They did only the minimum amount of work needed to pass their courses. Very few came to tutoring sessions immediately after class (too tired), and even fewer came before class (too early to get up). None came to my office during office hours, (too much trouble and no privacy).

4. Toward the end of the term, when students found themselves behind in their classwork, they availed themselves of the extra class time in the morning before class and also in the afternoon, immediately after class. Staying immediately after class had an unexpected benefit. Those who stayed to catch up on their classwork occasionally participated in the math workshop. Those who did not actually participate, were seen to be listening, and hopefully they learned something through this exposure. Many of these students asked for and received tutoring in other subjects than math. This was time well spent.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Proposed Curriculum for a One-Year Certificate Program in Office Skills at Bronx Community College

by

Clara S. Linn
Secretarial Studies Department
Bronx Community College

PURPOSES AND OBJECTIVES:

To design a curriculum for a one-year program in office skills leading to a certificate so that:

(1) entering students may select a program to prepare them in a brief time to function in office positions;

(2) current students who find stenographic skills unsuitable can meet the requirements of an office position;

(3) those who pursue this curriculum will take mainly current community college courses and be able to continue to study for associate and higher degrees.

DESCRIPTION OF PROJECT:

Open admissions has doubled the number of students in the Secretarial Studies Department at Bronx Community College from 1969 to 1971, from 300 to 600. Of the incoming secretarial enrollees in 1971, 54 percent were in need of remedial instruction in reading or English composition or both. The recording of correspondence in shorthand and its transcription as mailable letters requires a high order of competence in language comprehension, spelling, word usage, and sentence structure. A one-semester course in reading and one in writing do not improve the language level of many students sufficiently to allow them to succeed as stenographers.

A shortage of office employees exists in New York State. Some 70,000 positions are available. In 1970, training institutions had 94,000 enrollees in office occupations programs, of which 26,000 were expected to graduate.

When secretarial students are unsuccessful in their attempts to learn shorthand and transcription, they are likely to drift off into the job market inadequately prepared to serve in a modern office. The present proposal is to raise the general educational level of the individuals who are unsuitable as yet to become stenographers and to train them in other office skills, recognizing their achievement by the award of a certificate. The courses included would be ones attended by other students of the College and, with the exception of the remedial-level work, would earn college credits. Winners of certificates would be encouraged to continue to study at the College, full- or part-time, toward an associate degree and, where appropriate, toward transfer into a baccalaureate program.

Open enrollment has brought to Bronx Community College a larger proportion of Black and Puerto Rican students, a larger proportion of students who live in low-income families and who have parents and older siblings of low educational achievement, and a larger proportion who are parents of dependent children. Those who have selected a secretarial curriculum have indicated an interest in working in an office and a willingness to learn the necessary skills. If a relatively low level of language skills renders some unready to perform as stenographers, the College should provide a well-rounded program in general education and office skills, thus capitalizing on the students' interest and reducing the deficit of skilled office employees. Assuming that skilled office positions pay better than unskilled (a dwindling category), the community as a whole benefits economically and socially since individuals in low-income families qualify for better paying positions.

Winners of certificates of proficiency in office skills would be prepared to fill positions as clerk-typists, file clerks, receptionists, billing clerks, and some as dictaphone transcribers.

Certificate programs of limited duration are entirely in keeping with the purposes of the community college, which embrace meeting the educational needs of post-secondary students. One-year certificate programs are offered by many community colleges in SUNY and in other states. Examination of a number of these curricula leads one to suggest a two-semester pattern as follows:

Semester I		Semester II	
Sub-freshman English comp.	3 cr.	Freshman English	3 cr.
Reading Laboratory	3 cr. weight	Communications	3 cr.
Business Mathematics	3 cr.	Elective--psychology, social science, or speech	3 cr.
Typewriting 1 or 2 (placement test)	2 cr.	Typewriting 2 or 3	2 cr.
Office Practice	2 cr.	Business Machines	2 cr.
Critical Issues of Health	2 cr.	Elective in Business	3 cr.
Work Orientation	nc	Cooperative Education	2 cr.
	Total Minimum:	32 cr.	

The above program would be suggested to incoming freshmen who are required to register for both Reading Laboratory and sub-Freshman English. It would be recommended to those who attempt to learn shorthand and transcription but do not succeed.

With the exception of Office Practice and Business Machines, all courses have been approved and are functioning at the College. Office Practice would include filing, handling incoming and outgoing mail, use of the telephone, receptionist's functions, office organization, record keeping, grooming, and interpersonal relations. In Business Machines, the use and care of the following equipment would be taught: duplicating and preparation of materials for duplication; machine calculation; specialized typewriters, transcribing machines; billing and bookkeeping machines.

A measure of the success of the one-year certificate program would be a comparison of the proportion of entering secretarial students who leave the College with a separation document (associate degree, certificate, letter of acceptance into an institution of higher learning) with that proportion before the institution of the one-year certificate.

FINDINGS AND CONCLUSIONS:

This proposal for a one-year certificate program in office skills is to be submitted to the division of Evening and Continuing Education, which may be ready to offer Office Practice and Business Machines and seek permission to grant a certificate through recognized channels.

Sources

Bronx Community College, EDP Laboratory, Statistical Profiles of Incoming Students, 1970, 1971.

__________, Statistical Studies of Student Information and Reports Prepared by the Office of Institutional Research.

New York Times, Employment News, passim.

New York, University of the State of, Catalogs of the Colleges

United States, Dictionary of Occupational Titles.

__________, Occupational Outlook.

Interviews with

Bronx Community College, Assistant Dean of Continuing Education
Coordinator of Institutional Research
Chairman of Secretarial Studies Department

Personnel officers of Chase Manhattan Bank
Korvette's
McGraw-Hill Book Company
New York Telephone Company
Mutual of New York

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Slide-Tape Presentation of the Civil-Construction Technology Curriculums of the State University of New York at Farmingdale, in Action

by

Francis W. Meyer, Assistant Professor
Construction Technology Department
State University of New York at Farmingdale

PURPOSE AND OBJECTIVES:

The purpose of this presentation is to tell the story of the Civil-Construction Technology programs at Farmingdale. It will attempt as briefly but concisely as possible, to describe the program and what college life is like at Farmingdale to a prospective student. The presentation should not only be attractive to the typical high school graduate but also to the minority student. Most significantly, the program will describe to the student what he might expect, upon graduation, in the business world with his diploma from Farmingdale.

DESCRIPTION OF THE PROJECT:

Slides have been taken of the college community, the classroom environment and the subsequent work environment of typical students, professors and graduates. I have attempted to integrate a tape dialogue along with the slides. To be relevant I have attempted to include minority group students into the slide-tape presentation. I have also included a woman student in the program.

The presentation is about 20 minutes in duration. This program I envision to be used in Junior and Senior High Counseling, PTA Meetings, Civil Associations and any other interested parties.

FINDINGS AND CONCLUSIONS:

During the Summer Institute we visited two ghetto Community Centers. Here we discussed the goals of some of the young people. Of the many goals discussed, both by the parents and their children, they seeked such professions as a doctor, lawyer or teacher. The black student apparently could not see himself as an engineering technician. Therefore, the purpose of this presentation is to tell the story of the Civil-Construction Technician and what a technician might expect upon graduation. Hopefully this black technician will return to the black ghetto and build or design a new community for himself and his people.

As of this writing the presentation is not complete. I never realized the amount of time and effort required to produce, direct, write, edit, etc. a production. The original concept of the program was to elicit interviews from students, professors, and graduates and take their pictures in action, simultaneously record their unbiased comments on the Civil-Construction Program. To put it mildly it was running into too many technical problems. Therefore after much consumed effort this approach was abandoned.

Next, a narration method was used for the program. An announcer verbalized and described the college and the Civil-Construction Program. Unfortunately this came over very flat and dull.

The next and I hope the final retake, is where I describe the program through the eyes of a recent fictitious graduate. This is using the peer-group approach. First the graduate reminisces about his college life at Farmingdale, and his old college chums. Then, the graduate tells about his job experiences and how the college prepared him for his current occupation. Then he makes a special appeal about the opportunity to build the world of tomorrow through Civil and Construction Engineering.

To repeat myself, this final retake is not complete. I trust shortly it will be done to my satisfaction.

In conclusion, I feel this presentation will be an excellent counseling tool for students and parents, be they minority or majority.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

The Use of Graphic Arts Program at the Community College to Open Opportunities for Minority Students

by

Tibor Mingovits
New York City Community College

When I first decided to try to help underprivileged students by providing them with the means to a college education and thereby a career, I did not realize what I was starting! I had at my disposal information regarding job opportunities in New York City's second largest industry. Also, I was aware that many Long Island high schools offer Graphic Arts programs. The connection of these two factors seemed natural and logical. The inevitable next step was to contact a number of schools and arrange to visit them. To create the maximum visual as well as verbal attention, I decided to create a poster, which a student himself would like to display. The idea was much more easily realized than the poster itself. I had personally completed designing and executing the poster without assistance. I had put in over 150 total hours in preparing it for the press. This included many Saturdays, Sundays and long evening hours. In order to avoid copyright problems, even the zodiac signs were of my own design. Enclosed is a sample of the poster to demonstrate the special handling of colors for maximum appeal to the youth I was interested in reaching. 8,000 copies were printed by the college and have already been distributed both in New York City and on Long Island. A second printing is presently in progress.

The next step was to devise a speech, at a level of interest that would reach guidance counselors and yet be interesting to my main target, the students. To achieve this, all possible information had to be incorporated without making it too long or dry. When I contacted the schools, I emphasized that I wished to talk NOT to a general audience, but that my main interest was the students already in the printing program.

"Shop-Students" do not usually have the same outlook towards the future as do academic students. Attending college seems a virtually unattainable goal and is therefore not even considered. For this reason I felt strongly that New York City Community College's Graphic Arts Program can make the difference. My visits to these schools (Westbury, Seaford, Levittown, Herricks, Manhasset, Floral Park, Uniondale and Wantagh) confirmed by suspicion that most students had never heard of N.Y.C.C.C., were not aware of its open enrollment policy, and did not even know what open enrollment implied. The questions directed at me following the lecture indicated a sincere interest on the part of the students. When I extended an invitation to visit me at the college and see its physical facilities first-hand, two groups from Floral Park alone made the trip. I spent over an hour with each group showing them the college. On many occasions I was asked how to go about signing up for the Graphic Arts Program. On the strength of the results to date of this experience, I have decided not to terminate the program, but to continue in my own free time, and to cover as many junior and senior high schools as my time and schedule will allow. Evaluation of this program at this point would be simply impractical. The full scope, of course, cannot be realized until registration for the Fall 1972 semester has been completed. This will be the decisive factor in determining just how instrumental my personal intervention has been in providing these students with the tools to build their own future.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM INDIVIDUAL DEMONSTRATION PROJECT

Improving Technology Student Skills in Solving Physics Problems

by

Dinah L. Moche, Assistant Professor of Physics
Queensborough Community College

PURPOSES AND OBJECTIVES:

Physics is a required course in the career programs of mechanical and electrical technology students. A special course which does not require the use of calculus and which places heavy emphasis on those aspects of physics which are important in technology has been designed specifically for these students. Although the students who enroll in this course all plan a career in technology, the majority of them come to the course with little ability in and a great dislike for the intellectual process of analyzing problems in symbolic language and making the transition between abstract principles and numerical results.

The purpose of the project was to help minority students develop skill in analytical thought and numerical calculation using physics problems relating to a variety of situations.

DESCRIPTION OF PROJECT:

The project began in September 1971. Two classes of technology students were studied. One group, Ph 20J, consisted of twenty-nine students, to whom a planned program of remediation was presented, as will be described. The second group Ph 21 HF, consisted of eighteen students, to whom the course was presented in the conventional way, with the instructor available to the students for extra assistance during office hours and at their request. The primary responsibility for understanding the course content lay with the student in the second instance, whereas for the first group the instructor assumed the major responsibility for the student's grasp of the material. Since the traditional approach to education in college has always been based on the premise that the student is academically mature enough to plan and follow-through his own plan of studies, the second group of students who were treated in the conventional manner served as a control for comparison with the radical new approach used for the first group.

At first the minority and academically weak students were asked to meet with the instructor voluntarily whenever they felt they needed remediation. It became apparent immediately that these students would not seek extra help with their work when the assistance was presented to them as optional.

Next a series of weekly ten-minute quizzes based on the week's homework assignments was instituted; any student achieving a grade of 50% or less was approached personally by the instructor and told to come to the instructor for personal remediation. These students do not go to the library for additional materials to supplement their course work nor do they work on extra physics problems voluntarily to increase their proficiency. They did come to weekly remediation sessions when told to by the instructor, throughout the semester.

The weekly remediation session consisted of repeated individual explanations of the week's work. Each student was helped individually, one at a time. All the students who participated in the plan were able to solve problems by themselves by the end of the personal instruction period.

FINDINGS AND CONCLUSIONS:

In the control group, where the students were taught in the traditional manner emphasizing student responsibility, 22 percent of the group withdrew from the class and another 22 percent failed to achieve a satisfactory level of understanding. This result is typical of what has been happening in the technical physics course, even though Ph 21 HF was the second semester of the course.

In contrast, only 15 percent of the students withdrew from the experimental program of Ph 20J and 6 percent did not achieve the required performance level. When it is realized that this is the first half of the course in physics where the drop-out rate and failures are traditionally much higher, the result of consistent personal attention is seen to be extremely good.

The students showed that they can grasp symbolic language and make the transition to numerical analysis if they are approached in a personal rather than traditional way. The most important conclusion of this study is that in teaching minority and academically-weak students, the instructor must assume a role that is totally different from that of the traditional college professor. When the instructor institutes a compulsory remediation program and personally seeks out the student to aid and encourage him, as well as to explain gaps in his understanding of classroom material on a regular individual basis, the student responds with increased understanding of the abstract principles and ability to handle numerical results.

This approach necessitates a new role for the instructor but he is rewarded for his extra effort by a new depth of understanding and ability in handling numerical calculations on the part of his minority students. I am most optimistic about the capability of these students to handle college-level reasoning and calculations if they are taught in an appropriate manner.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Improving Motivation of Disadvantaged Students by Using Short Term Goals

by

Jeffrey A. Newman
New York City Community College
Voorhees Technical Institute

In helping minority students achieve a high level of learning and understanding of automotive technology materials, it is important for the student to have a high level of motivation. Students who want to come to class regularly, are attentive and work willingly and have a better chance to succeed. If a student can be shown the relevance of subject material, given hope and confidence that he can master it, and have some personal interest in it, his motivation is greatly increased. Add to this a little team work and competition for added push.

Discussions were held to give the students a better idea of the automotive industry, so they could see what they were learning could be put to good use. In normal lab work students performed "Hands on" operations that is part of the real service done in the field. By working with students and proving to them that they have done the work successfully, they build confidence in themselves. The introduction of projects to the students which are of personal interest helps to increase their interest.

Near the end of the term, students were allowed to bring in some of their own work, providing it pertained to class instruction. The whole class seemed much more enthusiastic when they knew that the job was for one of their fellow students and had to be repaired properly. The projects also posed real problems for diagnosis and reinforced the reality of learning the operation and getting it right.

A survey of the students was made in the first week of class to determine the extent of knowledge about the automotive industry. It showed that most students were very interested, but few had any idea of what jobs were available, or what they entail.

Short verbal quizzes were given at the beginning of lab classes to determine student motivation. By carefully assigning work and following student progress during the period, it is possible to give the student a better feeling of confidence. Having students help other students also helps.

Several times during the term time was taken in the lab for ten minute talks as to what happens in the real world of work. The cooperation of the other faculty members of the department gave the exchange of ideas an experience of broader base. The class as a whole was encouraged to work together as a team to help each other and share their experiences in the lab. It was hoped that their teamwork would carry over to other subject areas.

New York City Community College had three Automotive freshman classes running at the Voorhees Campus. The class which received their instruction with this approach in mind seemed to be more interested and did a little better on the uniform test given at the end of the term. Section A began with nineteen students; four were minority students. Seventeen students finished and passed; all four of the minority students passed. Section B began with nineteen students; five were minority students. Eleven finished the course and one minority student passed. Section C began with sixteen students; three minority students. Eleven passed; two of the minority students finished. Section A had a total of forty-four student absences from lab and theory classes for a total of ninety-three hours missed by students; Section B had a total of one hundred-thirteen student absences for a total of two hundred seventy-five hours missed by students. Section C had a total of fifty-six student absences. The final test average for the classes was: Section A - 2.58; Section B - 2.37, Section C - 1.45.

It is my opinion that the two-week summer institute has helped produce a more favorable result with Section A. There are many factors that have not been mentioned. All of the Auto Tech faculty did the best job they could and are always trying to do it better in the future.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Improving Minority Group Student/Teacher Relationships

by

Professor Henry Ortiz, Mechanical Technology Department
New York City Community College

PURPOSES AND OBJECTIVES:

The purpose of this report was to seek out and explore the reasons for the lack of communication between students and teachers. Once some of these blocks were encountered I tried to devise ways and means to remove them so that the teachers and students could help each other mutually toward a better understanding of each other.

DESCRIPTION OF PROJECT:

The first approach I tried was to have "man to man" talks with the students, first as a class, then individually. It was after several of these talks that I drew up an outline of how the class was to be conducted. I went over the draft with the class and had them participate by making comments and amendments. I gave reasons for all amendments that were not used. Now the students knew the rules at first hand. All of our tests and quizzes were given and graded according to rules all were familiar with. This helped but was far from tearing down a well-built barrier that took years to build.

FINDINGS AND CONCLUSIONS:

At this point I realized that the majority of the students' problems arose in high school. A great many of the students I talked to were beligerent and distrustful of teachers in general. This was mostly due to the fact that the counselling and advice they received when college choice came up was false, insufficient, and unsympathetic.

One way to overcome some of these problems was to at least make the students aware of the role that high school plays in their college career. I started informal talks with groups of junior high school seniors in this area and the response was very enlightening. I intend to continue this campaign as long as the junior high school seniors continue calling for them. My ultimate goal is to have formal high school guidance assembly talks at all Staten Island junior high schools.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Evaluation of Technical Manpower Requirements of Local Industries in Ghetto Areas

by

Sydney H. Pigott, Electrical Technology Department
New York City Community College

PURPOSES AND OBJECTIVES:

The objectives of this project were to determine the type of community-based industries of a technical nature that were located in the Bedford-Stuyvesant and Bushwick sections of Brooklyn and to ascertain the extent of educational level required to advance in such industries. The project would also determine whether these industries allowed visits from neighborhood students preparing for a college career. These visits, it is hoped, would provide a twofold objective; firstly, a quick visual reference to the duties of technology graduates; and secondly, an aid to the student in making the proper technology choice if this is his desired field.

FINDINGS:

The following places were visited:

1. Bushwick Community Corporation: District #3 Economic and Development Company.

The emphasis in this group was in the construction of Day Care and Drug Rehabilitation Centers. The information gained showed no technical industries at present or the hopes of attracting any in the future. The type of work openings requiring training were mainly managerial and assistant managerial positions in the Day Care and Drug Rehabilitation Centers. In the proposed Day Care Centers the architects were not neighborhood based.

2. Brooklyn Local Economic Development Corporation (BLEDCO).

This organization is mainly concerned with providing financial and managerial assistance to neighborhood based businesses. Although its emphasis is mainly on small business such as auto services, wholesale stores, small eateries, etc., this group could prove very helpful to neighborhood students of business technology.

3. Bedford-Stuyvesant Restoration Corporation.

This center like BLEDCO has an economic development program which helps local residents start new businesses, assists existing businesses, and encourages national firms to locate in the area. Because of the high taxes and heavy security needed, large companies are not eager to enter the neighborhood. Thus, the main thrust of the Business Development Division is towards small business investment.

The Business Development Division puts out a weekly report listing the status of all loan applications. This report also specifies business situations wanted and also businesses that are up for sale. It must be noted that at present the "available buy out situations" greatly exceeds the situations wanted.

4. International Business Machine Corporation (IBM)

The Restoration Corporation encouraged IBM to open a manufacturing branch in Brooklyn. This branch is basically a computer hardware assembly line division employing approximately 400 neighborhood residents. The work done entails assembling power supplies and cable links for the computers, and also testing to specifications of these units. The plant claims to be competitive with other branches of the company and also that their loss time due to absenteeism is much below the average of other neighborhood based companies.

5. Sona Labs, Inc.

Sona Labs, established with funding from Restoration Corp., employs at its peak 40 persons. The company initially manufactured and designed marine depth finders and transducers for the military. It is now going commercial with radio frequency electronic scanning devices and electronic organs. When I visited this plant the work force was approximately 6, and the company was awaiting much needed financing.

6. Barrett Communications.

This company is also receiving Restoration Corp. funding and has a peak employment of approximately 200 persons from the immediate neighborhood. It was mainly dependent on military contracts for mobile communications transceivers but is now going commercial with public address units and small neon type hot-line voltage testers. When I visited this company the number of employees were approximately 50 persons of which most were on the assembly line and 4 were testers, generally with AAS degrees from community colleges.

7. Construction.

Most of the construction work carried out by Restoration Center and Model Cities in refurbishings and in the creation of new residential areas called "Superblocks" is done mainly by minority architects. Although only 2 architects are located in the area, in fact at Restoration Corp., yet other minority architects such as Ince, Callender, Robinson, employ technicians from the neighborhood. It can be observed that some of the new residential buildings along Gates Avenue bordering Lewis and Stuyvesant are now being occupied. Future construction plans include a neighborhood shopping center and a new day care center at Bedford Avenue and St. Marks Place.

CONCLUSION:

This project has established that there is great activity in the construction of new buildings and refurbishing of old ones in the Bedford-Stuyvesant neighborhood. Seeing the construction as it moves along through all its phases can motivate neighborhood students to a better understanding of the technologies, and therefore student tours whenever possible should be arranged by community education groups.

Although the area has not been rich in technical industries, visits to companies such as IBM, Barrett, and Sona Labs, which are all neighborhood based, cannot only be an education but also a motivation to neighborhood students who will see managers and technicians from their own neighborhood at work.

Finally, neighborhood educational groups would do well to keep in close contact with the Business Development Division of Restoration Corp. to obtain listings of new technical businesses being introduced into the area since these may permit worthwhile student visitations.

All companies and persons listed will permit visitation by student groups:

1. * Mr. Brooks Clay
   Community Corporation of Bushwick
   District #3 Civic Association
   (Economic and Development Group)
   1493 Gates Avenue, Brooklyn, N.Y.

2. * Mr. Edward Maxwell, Assistant Deputy Director
   BLEDCO
   1519 Fulton St., Brooklyn, N.Y.

3. * Mr. Ivor Mitchell, Assistant Manager
   Bankers Trust Company
   896 DeKalb Avenue, Brooklyn, N.Y.

4. * Mr. Robertson (Public Relations)
   IBM Corporation
   390 Nostrand Avenue, Brooklyn, N.Y.

5. * Mr. Claude Vincent, Architect
   Restoration Corp.
   1368 Fulton St., Brooklyn, N.Y.

6. * Mrs. Sonia Battey
   Education Action Unit
   Youth in Action, Paragon Bldg.
   Fulton St., Brooklyn, N.Y.

7. * Sylvester Leaks
   Restoration Corp. (Public Relations Division)
   1368 Fulton St., Brooklyn, N.Y.

8. * Mr. James Shipp
   Restoration Corp. (Construction Division)
   1368 Fulton St., Brooklyn, N.Y.

9. * Lewis Williams
   Restoration Corp. (Economic Development Division)
   1368 Fulton St., Brooklyn, N.Y.

10. * Harry Dickerson, Director
    Sona Labs
    Brooklyn Navy Yard, Bldg. #3

11. * Fred Barrett, Director
    Barrett Communications
    369 St. Marks Ave., Brooklyn, N.Y.

12. William Ince (Architect)
    16 Court St., Brooklyn, N.Y.

13. James Robinson (Architect)
31 Union Square, New York, N.Y.

14. Leroy Callendar
101 Park Avenue, New York, N.Y.

15. Gilo Construction Corp.
33 Union Square, New York, N.Y.

16. H. Simmons (Architect)
133 Washington St., East Orange, N.J.

17. * Rawle Neptune
Education Action Unit
Youth in Action

*Author visited these persons in preparing this project.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

The Use of Spanish Language Texts as Supplementary Instructional Material in Mechanical Drawing

by

Edward G. Pita
Mechanical Technology Department
New York City Community College

PURPOSES AND OBJECTIVES:

The objective of this study has been to examine the availability and suitability of using Spanish language texts as supplementary materials in teaching mechanical drawing. The possible use of such texts might be in the case of a student who has a better reading ability in Spanish than in English. If texts in Spanish were available, the student might concentrate on the subject matter rather than also facing the language barrier while trying to master new material.

Our purpose here is not to rigorously test the success of such methods, but to solve the prior tasks of determining if the material exists, how to locate it, and to evaluate its potential use. The results of the investigation showed that a great deal of suitable material exists (not only in mechanical drawing, but in virtually every subject in technology and other career oriented programs). Preliminary analysis of the application of the material indicates that there is an area of need and use.

DESCRIPTION OF PROJECT:

The methods tried for locating the material were numerous. Most led to dead ends, but a few produced results. Leads were sought through United Nations agencies, the International Institute of Education, American publishers, RCA Institute, and similar sources. A list of technical publishers in Spain and Latin America was obtained and these were contacted by mail. Spanish language book importers and technical bookstores in New York City were also located. These proved to be the best immediate sources of books. Appendix A lists the main sources.

A few texts in mechanical drawing were selected for examination. Some are texts originally written in the country of publication, others translations from texts written in foreign countries, including France, Germany and the United States. After comparison of these books, the one that was selected as most suitable is "Manual del dibujante proyectista," by Giachino and Beukema, published in Mexico. It is a translation of an English language text by these authors. Appendix B lists the books available.

The directness, emphasis on fundamentals, clarity, and omission of unnecessary detail make this text a good choice for students having difficulty in any area of the subject. All basic elements in mechanical drawing are covered. Indeed, the writer believes that the English language edition would be more suitable for a fundamental course than many texts now used. Some of these texts go into a voluminous amount of unnecessary detail and special subjects that serve only to confuse and burden students trying to learn fundamentals.

Due to the time required to locate and obtain the texts, little time was available to test out the use of the text selected. One student was found in a mechanical drawing course taught by the writer, whose knowledge of English is somewhat limited, but is fluent in Spanish. This student comes from the Dominican Republic. Reading an assignment in the Spanish text was found to be easier and completely adequate in learning the material required, according to the student. This student was not doing poorly in the course before referring to the Spanish text, however. Thus no proof exists that he would not have succeeded as well without it. A controlled learning situation would be required.

To follow up on the potential use of Spanish texts in tutoring, the writer has had meetings with Mr. Boyarsky of the Tutoring Center at New York City Community College. It was not possible due to the lateness in the semester to locate students for immediate tutoring. However, contacts were made with various departments to investigate tutoring with Spanish texts next semester. Construction Technology and Data Processing appear to have students who may benefit by this approach. A memorandum is being prepared to locate students who may need the service. The Puerto Rican and Latin American Studies Program is being contacted to get referrals. If it proves useful, a small Spanish language library may be set up in the Tutoring Center.

FINDINGS AND CONCLUSIONS:

It may be concluded that Spanish language texts in mechanical drawing are available, and are suitable as tutoring aids for students who may benefit by studying the subject matter in Spanish. Preliminary studies of application of this approach indicate that there are students who may benefit from it and that success can be achieved by its use.

Attachment "A"

A List of Sources for Spanish Language Technical Texts

Libreria de Porrna Hnos. y Cia, S.A.
Apartado Postal M-7990, Mexico 1, D.F.

M. Aguilar Editor Librero, S.A.
Goya 18, Madrid 1, Spain

J. Lajonane & Cia.,
Calle Urquiza 34, Buenos Aires, Argentina

Casa Zamarano y Caperan
Casilla 362, Cantiago, Chile

Las Americas Publishing Co.
152 East 23rd St., New York, N.Y.

Lectorum Corporation
137 West 14th St., New York, N.Y.

Attachment "B"

Spanish Language Texts in Mechanical Drawing

Bachman	Dibjuo tecnico
Calderon B.	Dibujo tecnico e industreal
French y Vierick	Dibujo de ingenieria
Giachino y Beukema	Manual del dibujante proyectista
Luzadder	Fundamentos de diloujo en ingenieria
Schneider	Manual practico de digujo tecnico
Straneo	El dibujo tecnico mecanico

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Survey of the Relative Influence of a Number of Factors That Affect Students' Attendance at Extra-Help Sessions

by

Maurice Plotkin, Associate Professor
State University of New York at Farmingdale

Originally this writer prepared to report on the effectiveness of student-aid sessions on a select group of entering engineering technology freshmen who had demonstrated only marginal possibilities of successfully completing the first semester. The difficulty was not in locating such students but in inducing them to attend extra-hour sessions. The paper was modified to report on the various means that were employed to attract them as well as the factors that influenced their attendance. As part of this project, the opinions of a group of students, both upper and lower classmen, were solicitated, ostensibly for the benefit of interested faculty.

The attached ten question questionnaire was anonymously answered and collected from a total of 246 full time engineering technology students at S.U.N.Y. at Farmingdale during the months of December, 1971 and January, 1972. The freshmen and seniors were separately tallied in order to see if there was marked difference between their responses. For the most part they agreed, the exceptions being pointed out below.

It must be noted that as is not uncommon with questionnaires of this type, some answered only a few questions while others checked off more than one choice as their answer to some specific question. For example, Question #4 which asked for the student's preference of conditions in attending extra-help sessions elicited a large number of multiple responses. All were tabulated as showing obvious preferences. One must also look carefully at these answers receiving the lowest scores since it would appear that these are the least effective and should not be depended upon to attract students to see instructors after class hours.

The results obtained are listed directly on the attached questionnaire. A review of the tallies indicates the following conclusions:

Question #1 - While a majority of the students met outside of class at least once during the semester with some instructor, a significant percent (30% seniors, 25% freshmen) admitted never attending any extra-hour sessions. In the opinion of many faculty this figure is too small and that the claims that a somewhat similar group attended more than two extra hour sessions (24% seniors, 36% freshmen) was accordingly too large.

Question #2 - Those attending extra hour sessions usually met with only one or two specific instructors. It is logical to infer that they mostly saw those teaching in their curriculum.

Question #3 - Very few claimed that they were personally asked to meet their teacher after class. It should be noted that the responses of Question #10 indicates that in the opinion of the students a personal invitation is among the three most effective methods of attracting them to extra-help meetings.

Question #4 - Students preferred seeing their instructors either alone or together with one or two others with the same interests. They definitely rejected attending general, department-wide extra-help sessions.

Question #5 - The overwhelming majority of both seniors and freshmen felt that their classmates who attended extra-help sessions were conscientious and respected them for it.

Question #6 - A number of multiple responses shows that students have equal preference for faculty offices or empty classrooms over other locations.

Question #7 - The vast majority engages in some outside work. An equal percent (17%) of both seniors and freshmen work in excess of 5 hours a day. Obviously this reflects on the time available for extra-hour meetings.

Question #8 - The students were totally divided on the possibility of meeting before or after school hours. The only conclusion that one can come to is that extra-hour help sessions can be held both before classes start in the morning or afternoons after classes are over for the day for many students, but an instructor should not expect the entire class to attend.

Question #9 - Apparently the majority of the students would not object to using school "activities hours" for extra-help sessions. Normally, this is forbidden by school rules for any classroom related work.

Question #10 - The most effective attraction appears to be some sort of a reminder of the availability of extra-help hours just prior to an exam. Almost as effective is a scheduled review of an exam. Among the top three factors is a direct personal invitation. The least effective were general classroom and bulletin board announcements. An interesting contradiction was revealed by item (h) - extra credit for those attending. Freshmen as a group put it near the bottom while the seniors placed it among the top. As a practical matter, faculty who have used this approach claim that this is the most effective in getting a turnout.

STUDENT QUESTIONNAIRE

In order to improve the effectiveness of the office hours faculty members schedule for meeting students, you are asked to help by completing this questionnaire. Please do not sign your name. Merely check off the answers which indicate your responses. Thank you.

1. How often have you visited instructors during scheduled office hours this semester?

	RESPONSES	
	SR	FR
______ (a) Never	17	46
______ (b) 1 or 2 times	21	74
______ (c) 3 - 5 times	8	48
______ (d) 6 - 10 times	10	12
______ (e) More than 10 times	2	8

2. How many instructors have you seen after class hours for reasons relating to school this semester?

______ (a) None	16	55
______ (b) 1	12	44
______ (c) 2	14	42
______ (d) 3	1	24
______ (e) More than 3	10	22

3. How often have you personally been asked (either verbally or in writing) to attend extra help sessions?

______ (a) Never	41	141
______ (b) Once	12	32
______ (c) Twice	0	4
______ (d) More than two times	2	5

		RESPONSES	
		SR	FR
4.	In general, under what conditions would you prefer to see your instructors outside of regular class hours?		
_______	(a) Alone	16	90
_______	(b) With one or two others taking same course	27	62
_______	(c) At scheduled extra help sessions arranged by your instructor for only his students	12	26
_______	(d) At extra help sessions scheduled by department to which all students taking specific courses are invited	4	13
5.	What is your opinion of other students who visit their instructors during scheduled office hours?		
_______	(a) They have nothing better to do then.	0	7
_______	(b) They want to impress their teachers.	12	16
_______	(c) They must be really desperate.	1	13
_______	(d) They conscientiously want to learn and are trying to get the most out of the class.	45	152
6.	Where on campus would you prefer to meet with faculty for extra hour sessions?		
_______	(a) Faculty office	19	76
_______	(b) Empty classroom	39	92
_______	(c) Library	0	10
_______	(d) Student or faculty lounge	4	23
_______	(e) Cafeteria	0	15
7.	How many hours are you engaged in this semester in outside work?		
_______	(a) None	14	32
_______	(b) Weekends only	7	28
_______	(c) After school - less than 3 hours a day	10	40
_______	(d) After school - from 3 to 5 hours a day	14	62
_______	(e) After school - more than 5 hours a day	10	32

8. Would you be interested in attending extra help sessions before your classes start in the morning or after classes are over in the afternoon?

		RESPONSES	
		SR	FR
______	(a) No for either	3	28
______	(b) Yes for morning only	6	32
______	(c) Yes for afternoon only	21	31
______	(d) Okay for both	22	60
______	(e) Only if they cannot be scheduled at any other time	4	34

9. Faculty are prohibited from scheduling office hours during school activities hours (Tues. and Thurs. at 11 a.m.). Would you prefer that faculty be permitted to schedule their office hours during those times?

______	(a) Yes	39	73
______	(b) No	0	34
______	(c) Only on special occasions	8	30
______	(d) Undecided	8	59

10. Study the following list and indicate in numerical sequence the influence of each of them in inducing you to attend an extra help session. List the one that would attract you most as number 1 with the second most effective as 2, etc.

		RELATIVE STANDINGS	
______	(a) Bulletin board notices	8	7
______	(b) General class announcements made early in semester	7	8
______	(c) A reminder made prior to an exam	1	1
______	(d) A personal verbal invitation by your instructor	5	2
______	(e) A personal written invitation by your instructor	4	4
______	(f) A more thorough review of homework than normally done in class	6	5
______	(g) A more thorough review of examinations than normally done in class	3	3
______	(h) Instructor gives extra credit for those attending	2	6

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Increasing Learning Experiences with Educational Games

by

Stephen Poch
New York City Community College

PURPOSES AND OBJECTIVES:

This project was designed to motivate interest and to develop comprehension and recall in students by incorporating educational games and puzzles into the learning process.

Learning is a serious business, but it should be pleasurable; acquiring knowledge is irksome, but it need not be. This experiment was an effort to interject some joy, desire, and excitement into the learning experience by utilizing educational games and puzzles which require the involvement and participation of all students in any group.

DESCRIPTION OF PROJECT:

Most teachers have experienced the responding gamut of emotions--from despair through apathy to mild enthusiasm--which erupts from students at the mere pronouncement of an examination. Conversely, these responses contrast dramatically with the cries of joy and the cheers which greet the announcement that an examination is to be postponed or cancelled. If the latter frenzied reaction could be channeled into implementing learning by some competitive device, education would supplant sports as a major interest.

This study attempted to place emphasis on competitive performance to prepare students for examinations by educational games, because it was believed that the introduction of fun and competition into the learning experience would not only be enjoyable but beneficial as well, and might even stimulate intuitive thinking.

Two methods were used in an attempt to achieve this aim. First, a series of scrambled word puzzles similar to those seen in the comics of our daily newspapers were concocted; not so much to emphasize the solutions of the puzzles, even though the challenge to do so was present, but to coerce the student into exposing himself to the vocabulary, the definitions, the idioms, the formulas, and the problems which he had previously been assigned. This part of the program was for individual determination. The completed puzzles were treated as homework and were graded accordingly.

Secondly, lists of questions (without answers) were prepared and assigned to two groups, which were designated as teams either arbitrarily or selectively by appointed captains. Several schemes were then employed to relate to local sport rivalries. In a simulated baseball game, the teams were the Yanks and the Mets; in basketball, it was the Knicks vs. the Nets; and in football, the opposing teams were the Giants and the Jets. A set of ground rules and scoring schedules were devised to adapt to each sport. Every student was required to participate on both the "offensive" and the "defensive" teams (asking or answering questions). Points were scored on the basis of either first or second correct answers or no points for wrong answers. A great deal of flexibility was possible, and so much enthusiasm was generated that arguments ensued. The instructor was the sole arbiter--both umpire and referee.

FINDINGS AND CONCLUSIONS:

A dearth of data and a lack of suitable controls were the primary limitations of the project. It had been originally planned to compare the grade averages of examinations without the game participation with those following game sessions. However, vast differences in subject matter, the degrees of difficulty, and the time sequences ruled out valid comparisons. Consequently, average grades from prior classes were utilized as controls since comparable conditions were more cognated.

Classes in Metallurgy I (MT 304) and in Materials Selection (DD 301) were selected for the study, in spite of the fact that experiences were hampered by schedule pressures, class sizes, and time limitations. Accordingly, only one trial in MT 304 and two in DD 301 were concluded. Average scores for examinations from previous classes without game participation were compared with averages game participants scored on their examinations. See Table I below.

From the values in Table I, it is evident that the outcome indicates considerable success with the introduction of educational games. However, the paucity of information does prejudice the validity of the results, since such a meager sampling would be inconclusive. Nevertheless, the definite trend warrants a more complete study to measure the positive results.

It is quite likely that an intensive conventional review session might accomplish the same aim--increasing grades and improving corollary benefits of learning, but the passive and apathetic students would not have been broached. These students did become involved in the team effort and responded positively. In addition, there was an enthusiasm not prevalent in the conventional review session.

Students agreed overwhelmingly that the games were helpful, and many were eager for an encore. There were some complaints that the puzzles were time-consuming and required a great deal of searching through the textbook for the answers. In that perspective, they seemed to have served their purpose and were successful. It appears on the basis of this study that a more comprehensive program in this field does have merit, and that it could improve students' habits and have them enjoy it more.

No doubt that with a little more creativity, more sophisticated games could be engendered, and that they would enhance the learning process and give it greater palatibility.

TABLE I

Course	Sequence Exam No.	No Game Participation		Game Participation	
		Exam Averages (%)	Number of Students	Exam Averages (%)	Number of Students
MT 304	1	64.2	56 (3 classes)	73.4	18
DD 301	2	64.0	17	68.0	9
DD 301	3	69.0	16	86.7	9

APPENDIX I

MT 304

SILENET	☐☐☐○☐☐☐	A lot of pull.
ERTU ARTINS	○○☐○☐○☐☐☐☐	Not false, but severe.
SATICLE	☐☐☐○☐☐☐	Like a rubber band.
CASTILP	☐☐☐○○☐☐	Doesn't hold to form.
EARA	☐○☐☐	Two dimensional.
LEIDY	☐○☐☐☐	Give right of way.
TOGNAINOEL	☐☐☐○☐☐☐☐☐☐	Stretched out.

GRUNTS AND GROANS

○○○○○○ ○○○○○○

YANKS

1. The Metallurgical Field is divided into two large groups; they are (a) ____________________ (b) ____________________.

2. A temperature measuring device which requires a radiating source known as a blackbody is ____________________.

3. When two dissimilar wires are joined together and there is a temperature difference between the ends, an EMF is generated which is known as the ____________________ effect.

4. The total magnification obtained with a 12x eyepiece and a 40x objective lens on an optical microscope is ____________________.

5. Name a thermocouple that can operate at 3000 deg.F. ______________.

6. In hardness testing what does BHN stand for ? ______________.

7. Name the units used in a Charpy test ____________________.

8. A Scleroscope measures what kind of hardness? ______________.

9. Name two tests that are used to measure ductility in metals (a) ____________________ (b) ____________________.

10. Is a Creep test a destructive or non-destructive test? ______________.

11. Which one of the following can measure the highest temperatures:
    (a) thermocouple ____ (b) optical pyrometer ____ (c) resistance thermometer ____

12. Name two non-destructive testing methods: (a) ______________
    (b) ______________

13. How is true stress calculated? ____________________

14. In a stress/strain curve, which property is the measure of stiffness?
    ____.

15. Which hardness testing machine has a direct reading mechanism incorporated into it? ____.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Student Prepared Freshman English Curriculum and Handbook

by

Catherine A. Porzio, Instructor of English
New York City Community College

PURPOSES AND OBJECTIVES:

The project was designed to test the following theory: If students select the subject matter for freshman Englisn their motivation will be increased, as will be their interest in the course, because the material submitted will reflect their culture, interests, and/or needs.

DESCRIPTION OF PROJECT:

Three freshman English classes were informed of my project and given the following assignment:

By November 12 each student will be required to submit (a) a piece of literature (to be defined as a song, poem, magazine article, short story, etc.) which reflects his culture and/or interest OR (b) a writing problem which he finds essential to success in an English course, in other courses, or in his work experience. Along with the selected material, each student should submit a lesson plan, detailing how he thinks the material should be presented in clas.

The assignment was given to 63 students; 42 completed it, either in part or fully. After receiving the material each article and lesson plan was read, evaluated, and categorized. The material included: 17 poems, ranging from more "traditional" poets to rock lyricists, 14 articles, 4 from newspapers and 10 from periodicals, 2 short stories, The Snows of Kilimanjaro by Ernest Hemingway and D-Day by Robert Trout; 1 essay, Mamie by Hans Zinsser; 1 epitath by O'Neill, The Last Will and Testament of an Extremely Distinguished Dog; 1 longer work, The Making of a Surgeon, by William A. Nolen, MD, 1 quote from the guide to Olympic competitors; 1 picture to be used as the basis of a composition; 1 set of "amazing" facts; and 1 grammar lesson, on sentence fragments.

Lastly, students were asked why they chose the material they did or why they failed to complete the assignment. Again, not all responded.

FINDINGS AND CONCLUSIONS:

The project did not significantly increase motivation and interest because: (1) only 42 of 63 students fulfilled the assignment. While it is true that some of the students who failed to submit material pointed to heavy work schedules and lack of time, even among those who completed the assignment relatively few came to speak to me about their contributions and only two others seemed genuinely enthusiastic about the work. Many other students seemed concerned only about whether or not the project would be graded. (2) the students tended to gather material from already familiar sources. Most automotive students, for example, chose articles from Hot Rod, Cars, and The Daily News; and most of the "traditional" poets suggested for study (i.e. Blake, Byron, Poe, etc.) are taught in the high schools. Hence, in a way, a course based on this material might have to focus on new ways of viewing the already familiar material rather than seek to broaden the scope of the students' knowledge. Personally, I don't think the material gathered could serve as the basis for an entire course. (3) much of the material did not really reflect the interests or needs of the students. For example, only one student suggested the study of a grammatical problem, but many students need help in that area. Further, 17 students suggested the study of poetry, a subject often rejected by a majority of the students. Finally, when asked to explain their choices, many students admitted that they did not actually feel strongly about the value of the material they submitted; they merely handed in something, preferably something familiar and short, that would satisfy the requirement. (4) One of the more positive results of the project was the material submitted by students and listed below which I personally hope to make use of in future classes.

Poems:

Who Weeps - Peter Davis (a Manhattan insurance broker and friend of the father of one of the students who died at Kent State)

Life - Paul Dunbar

I, Too - Langston Hughes

If We Must Die - Claude McKay

Rock Lyrics:

Old Friends - Simon and Garfunkel

Ball of Confusion

The Ballad of Mad Dogs and Englishmen - Leon Russel

Suggestions for Writing Assignments:

Write a paragraph or two on how the sense of smell helps to remind you of a period or event in your past. Based on Mamie.

Write an essay in response to a picture.

I had hoped to use a great deal of the submitted material in my classes this term, but a time shortage prevented that.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Promoting Interpersonal Relationships in the Learning Process

by

John C. Raffaele
Electrical Technology
A & T College at Farmingdale

PURPOSES AND OBJECTIVES:

Teachers are familiar with the fact that all students have a definite set of attitudes towards learning. The attitudes may be quite favorable or strongly unfavorable, but they are rarely neutral. It is the function of the teacher to reinforce one and bring about a change in the other. The demonstration project, "Promoting Interpersonal Relationships in the Learning Process" has for its thesis that this can be best accomplished by getting the student involved and making him a partner in the learning process and in sharing of learning. It is also a reaching out to all students on a needs basis to help bring about:

1. A learning experience which will require their active involvement, their personal investment of feelings and thinking.

2. A sense of achievement in at least one or more of the following areas: set of skills, course content, values, good self image, personal and social adjustment and his role in society. Success in any one of these areas will be evidenced by a change in student's behavior or attitude and minimize any feelings of worthlessness to himself and to others.

DESCRIPTION OF PROJECT:

The procedures and techniques employed in implementing the project evolved from the normal interaction of the students and the instructor in carrying out the course of instruction, and sharing in the learning process. "Reaching out to all students to let them know you care" begins in the classroom, especially with the techniques used in the presentation of the lesson. It is at this point where all the students will discover the attitude of the teacher towards the learners. The presentation will reflect the instructor's interest and concern and hopefully increase students' interest and effort in learning. Some of these items and the results of each are listed on the questionnaire, Evaluation of Course Content and Instruction.

"Getting the student involved and making him a partner in the learning process" is a form of extrinsic motivation and can be initiated in a subtle manner by employing the following technique. When giving an assignment and/or instruction, write it in the form of a memorandum.

Memo: To Student
From: J.C. Raffaele
Re: Topic or Subject

In addition to the assignment, a portion of the memo states the purpose of the assignment as a learning experience. For example, "Only through the experience gained in attempting to solve some of these problems and in overcoming your frustrations, with the help of your instructor, will you develop the confidence you desire in handling these facts and principles."

"To promote understanding and acceptance of one another as partners in the learning process," the following procedure takes place upon meeting the class for the first time. Following a brief introduction, the students are asked to fill out a 5 x 7 card. This is accomplished in a very informal manner. Instead of telling them or giving them a list of all the items at once, each item to be reported is preceded by and/or followed by a short discussion or explanation of why the item is requested. On the basis of the reactions observed, the following items stimulate the greatest interest.

1. List one or two of the most important attributes they would like to find in a teacher.

2. List one or two attributes they believe a student should possess.

3. List an outstanding personality trait they possess which would help me remember them by recalling the trait. ("A lot of discussion takes place here.")

4. List the title of one book they read which they feel greatly influenced their attitude towards life. ("I tell them this is my method of making up a list of books to read during summer vacation.")

5. Identify a person they know personally or read about and who made a direct impact on their lives causing a definite change in their behavior.

Other items on the 5 x 7 card other than the above will be found listed in the appendix.

In listing the important teacher attributes, the phrases most used were, "ability to communicate," "interest in students," "helpful," "friendly," "sense of humor," "considerate" and "patient."

"Reaching out to all students on a needs basis" is an action and it takes place wherever the student and instructor encounter each other. When students are urged to come to the office for aid or special consultation, much too often these invitations go unheeded. Generally, the academically weak student does not ask for help or advice, no matter how desperately he needs help. Another approach is to seek out the students and, if by chance appear in their presence and offer your help on the spot. Except for the weekly meetings in the cafeteria ("When I went for coffee") an hour before the session for the weekly quiz, this did not happen too often.

Rap sessions as part of the regularly scheduled class hours received little play this semester owing to the fact this group was locked in step with five other sections in a team teaching approach to instruction. Students were invited to write a short paper on what they think is involved in the learning process, but this technique suffered a similar fate.

FINDINGS AND CONCLUSIONS:

Student reactions to the techniques and practices employed in this project were recorded by the student on the questionnaire shown in the appendix. Responses in percentages are given directly in the space provided for each item. This information is supplemented by a written critique, the format of which is included in the appendix.

Student comments and responses were very favorable and perhaps indicated some competence in promoting interpersonal relationships in the learning process, however teacher evaluation was not the intent of the project. As a matter of record, the findings as indicated by the questionnaire and the written critique appear to be incompatible with the overall attendance record and attrition which are yet to be finalized. The written critiques revealed how much it really meant to them to know "the teacher really cared if we passed or failed," and "our relationship has been out of sight (good) in class and out of class." Undoubtedly the learning experience did require their active involvement, and some favorable attitudes were reinforced and others changed. However, in light of the poor attendance record and attrition, did "reaching out to all students on a needs basis" help to bring it all about? Ninety-two percent of the students feel, now that the semester is over, "class attendance was necessary for understanding the course." Of the 20 percent attrition suffered by the group, only two students consulted with me before leaving school; the other eight simply dropped out. How many of the remaining students will return next semester?

In short, the findings and general impressions seem to indicate:

1. The need for a follow-up study to evaluate students' sense of achievement as evidenced by a change in behavior or attitude.

2. That "reaching out to all students on a needs basis" is a form of extrinsic motivation, the beneficial effects of which are short-lived unless there exist opportunities to reenforce the motivation until it becomes intrinsic.

3. "Promoting Interpersonal Relationships in the Learning Process" as perceived in the project is best carried out by one teacher rather than the locked in step type of team teaching.

4. That some version of the New York Urban League's pilot mini-school might provide a better kind of atmosphere.

MEMO: TO OUR ET 101 STUDENTS
FROM: PROF. J. C. RAFFAELE
RE: APPRAISAL OF COURSE CONTENT AND INSTRUCTION

This survey is an effort to find out what you think of the educational experiences you had in this course.

Your comments will help us to evaluate the preparation, notes, procedures, level of instruction and techniques employed in presenting the course, as well as the effect of our personal contact with you in the educational process.

Hopefully, the results of the survey will help foster over-all improvements in the courses offered to future students and further, promote interpersonal relationships in the learning process.

We urge you to exercise your best, honest, and impartial judgment in responding to this questionnaire.

PLEASE DO NOT SIGN YOUR NAME (or otherwise identify yourself) ON THE QUESTIONNAIRE.

"The results for each item are posted directly in the space provided for the response. The percentages given rarely add up to 100 because some students left out certain items."

STATE UNIVERSITY
AGRICULTURAL AND TECHNICAL COLLEGE
AT FARMINGDALE

EVALUATION OF COURSE CONTENT AND INSTRUCTION

I. GENERAL RATING OF INSTRUCTION: (Check one.)
The instruction you received in this course was:
Excellent 63 ; good 24 ; average 13 ; fair 0 ; poor 0 .

II. GENERAL REACTIONS: (Check appropriate item.)
a. How did the value of this course compare with other courses you have taken in:
(1) The Electrical Curriculum? Outstanding 44 ; superior 42 ; average 8 ; inferior 3 ; very poor 0 .
(2) The entire University? Outstanding 37 ; superior 36 ; average 22 ; inferior 0 ; very poor 3 .
b. Were lectures clear and organized? Yes 92 ; No 5 .
c. Did lectures stimulate you to think? Yes 81 ; No 14 .
d. Were instructors available out of class? Yes 92 ; No 0 .
e. Did your instructors encourage you to seek their help outside of class? Yes 98 ; No 0 .
f. Did instructors show interest and knowledge in course material? Yes 98 ; No 0 .
g. Did instructors create interest in course material? Yes 85 ; No 7 .
h. Was class attendance necessary for understanding of course? Yes 92 ; No. 5 .
i. Did you feel free to question, disagree, and express ideas? Yes 92 ; No 7 .
j. Did you feel you had sufficient opportunity for questions during the large common lecture? Yes 70 ; No 29 .
k. In terms of teaching effectiveness, do you feel a smaller class size for the major lecture would be: Much better 29 ; slightly better 36 ; about the same 34 ; worse 0 .
l. Would you recommend this course to a friend? Yes 83 ; No 12 .
m. Would you recommend your instructors to a friend? Yes 92 ; No 3 .

III. GENERAL INSTRUCTION: (Check one or more comments.)
a. Interest: Stimulating 46 ; average interest 22 ; varies in interest 32 ; mediocre interest 2 .
b. Balance: Well balanced 80 ; too much detail 12 ; too little detail 5 .
c. Usefulness: Too much emphasis on the practical 7 ; too much emphasis on the theoretical 35 ; about right combination of each 56 .
d. Organization: Excellent 60 ; good 32 ; fair 5 ; poor 2 .
e. Time spent on outside readings: Too much 12 ; about right 60 ; too little 24 .
f. Time allowed for student participation: Too much 0 ; about right 60 ; too little 20 .

g. Use of overhead projector:
   (1) How do you feel it compares to use of the chalkboard? Overhead projector preferred 36 ; overhead projector better in most cases 39 ; overhead projector sometimes better 22 ; overhead projector never better 5 .
   (2) Do you feel the extent to which it was used in this course was:
   Too extensive 8 ; about right 78 ; too limited 2 .

h. Demonstrations:
   (1) The demonstrations used to illustrate course material were:
   Very helpful 49 ; somewhat helpful 48 ; useless 3 .
   (2) Do you feel the number of demonstrations used was:
   Excessive 0 ; about right 71 ; too few 22 .

i. Assignments:
   (1) In general were: Clear 32 ; reasonable 54 ; carefully given 14 ; sometimes not well planned 17 ; often not well planned 0 ; not clear 10 ; poorly planned 0 ; impossible 5 .
   (2) Were the assignments usually of reasonable length?
   Yes 49 ; No 46 .
   (3) Were the instructors helpful with the difficulties encountered in assignments? Yes 97 ; No 2 .
   (4) Did you find written solutions to assignments useful?
   Yes 92 ; No 3 .

j. Examinations:
   (1) Examinations are: (Consider length, material covered, clarity of questions, fairness of grading.)
   Excellent 12 ; good 58 ; mediocre 22 ; poor 5 ; impossible 3 .
   (2) Do you prefer:
   Many short quizzes plus a final examination? 88
   Just a few one (1) hour tests plus a final examination? 10
   Just a mid-term and a final exam? 0
   (3) Did examinations and tests measure students' ability to think effectively about the course material? Yes 78 ; No 15 .
   (4) Did you consider examinations and tests fair? Yes 80 ; No 15 .
   (5) Do you feel that the instructors were fair and impartial in evaluating individual students? Yes 91 ; No 5 .

(Adapted from a rating form prepared by the American Accounting Association.)

Write a short critique of your educational experiences in this class.

(ET 101)

a. List those experiences and interpersonal relationships which were most helpful in achieving the goal you set for yourself and those which were least helpful.

b. Also include those factors outside of class which aided or impeded your progress in reaching your goal.

c. If you could start over again, what would you do differently?

Note: Request for critique was distributed and read to students, followed by short explanation of each item.

1971 EPDA SUMMER INSTITUTE AND FOLLOW-UP PROGRAM INDIVIDUAL DEMONSTRATION PROJECT

Establishment of a Tutorial Program for Academically Deficient Accounting Students in Second Semester Accounting

by

Myron J. Salston, Assistant Professor
Business Administration Department
State University
Agricultural and Technical College at Farmingdale

PURPOSES AND OBJECTIVES:

The aim was to institute a tutorial program, conducted by students under the supervision of a faculty member, for assisting academically deficient students in reaching the proper level of success in first and second semester accounting.

The major objectives were to encourage students to continue in the course despite the difficulties they may be experiencing; to motivate students to improve class attendance; and to provide an opportunity for academically superior students to experience the pleasures and frustrations whey they become personally involved in the desperate need of academically deficient students for consideration and personal attention.

DESCRIPTION OF PROJECT:

A review of the Department records was made and a panel of tutors, all with a cumulative average of a minimum of 3.0 and with grades of A or B in the first two semesters of accounting was prepared. I approached those students on the panel who had been or were in one of my classes and explained the purpose and objectives of the program. It was gratifying to find that over 90% of the students approached were enthusiastic about participating in the program. I promised each participant that upon completion of the semester each volunteer would receive a letter of commendation which would be placed in his or her personal file.

During our first department staff meeting, I described the program and requested members who were teaching accounting to refer students that might benefit from this program.

FINDINGS AND CONCLUSIONS:

The chairman and members of the Department supported this project in many ways. I believe that without this support, a project of this nature would be very difficult to organize.

Fifteen tutors participated in the program. I have no doubt that I could recruit as many additional tutors as would be necessary. Eighteen academically deficient students took advantage of the program. One problem that I had encountered was getting academically deficient students early enough for the program to be effective. Instructors generally are in no position to determine which students require help until the student has taken his first examination.

I have received reports which indicate that some students lack basic knowledge in arithmetic. Students so ill prepared should not be permitted to register in an accounting course until they demonstrate ability to do basic functions in arithmetic.

This report is being submitted prior to the conclusion of the semester so that I am unable to evaluate the program in terms of improvement of grades. Success of this program cannot and should not be measured by improvement in grades alone. Some students who were referred for tutorial help were beyond redemption. These did not belong in an accounting class at all. I think the most important measure of success lies in the fact that a student who needs help can find someone who cares and is willing to give of his or her time in a cheerful manner. Many students find the pace in the classroom beyond their capacity. By working with another student, on a one to one basis, a single item can be gone over and over again, not with the instructor, the paragon of authority, but with a peer.

COPY OF LETTER OF COMMENDATION

December 10, 1971

Mr. Bruce Meisner
47 Sharon Lane
Levittown, N.Y.

Dear Mr. Meisner:

I wish to express my appreciation as well as that of the Business Administration Department for your participation in the tutorial program in Accounting during the fall semester of 1971.

This program provided tutoring to disadvantaged students on a one to one basis, voluntarily, and on your own time.

I feel that you should be commended for your unselfish participation in this most worthwhile program. It shows awareness, consideration, and appreciation of the needs of students who require encouragement and help.

Any student who gives fully of his time deserves some special recognition. Accordingly, a copy of this letter will be placed in your files in recognition of your service.

Sincerely,

/s/

Myron J. Salston,
Asst. Prof. Business Administration
Department

MJS/vs
cc: Mrs. Conklin

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Minority Students in Bachelor of Technology Program at The City College of CUNY

by

Professor Byron G. Schieber Jr.
Mechanical Technology Department
Queensborough Community College

PURPOSES AND OBJECTIVES:

To produce statistics which will provide encouragement to Puerto Rican and Black students to enter the A.A.S. program in engineering technologies from high school.

To instill confidence by knowing that a four year Bachelor of Technology degree at City College is attainable.

To indicate job opportunities that are available.

DESCRIPTION OF PROJECT:

The statistics and data hereinafter reported were obtained in part from a questionnaire distributed to the classes of Bachelor of Technology students (Junior Year) entering City College in February and September 1971. Of the questionnaire distributed to the February class, 41 of 44 were completed and returned while the September group returned 75 of the 85. This represents a rather good response.

A breakdown of the number and percentage of minority group students enrolled in the BET program is as follows:

Entering Class	Black	Puerto Rican	Chinese	Total Students
Feb. 1971	6 (13.5%)	2 (4.5%)	7 (16%)	44
Sept. 1971	12 (14%)	8 (9.5%)	11 (13%)	85

The above percentages in brackets are based on percent of total class enrollment.

Compilation of Statistics

1. Reasons stated by BET students for entering program (motivation)
    - a) Better chance for employment opportunities and further advancement with Bachelor of Technology degree. Majority made this statement.
    - b) Prestige of 4 year degree - several
    - c) Motivated by father who is an electrical engineer - 1 student
    - d) Present job market tight - several
    - e) Greater personal satisfaction in advanced educational development - several
    - f) Full transfer credit accepted from 2 year community college - several
2. SEEK and College Discovery Students - None
3. Technicians with A.A.S. Degree working in industry prior to entering BET program - approximately 20% of February 1971 entering class; 10% of September 1971 class
4. Students receptive to Cooperative BET Program - Approximately 65% of both classes were in favor of such a program, 35% were not in favor or undecided. Those against desired to graduate as soon as possible or stated they were presently employed.
5. Students needing a Coop. Program from financial standpoint - 64% - Yes; 36% - No (including those presently employed)
6. Number of Children in Family - The average number of children per family was 3, with a minimum of 1 and a maximum of 7. Of this group 12 students were married with 10 reporting no children and 2 having 2 children each.

Since questionnaires were anonymous, the minority group answers could not be segregated.

7. To a question regarding a suitable place to study quietly at home answers were as follows: 60% - Yes; 25% - No; 15% - Sometimes Majority (85%) did not make use of college library.

8. Students working at outside employment - Working - 68%; Not Working - 32%. Of the students working the calculated average was approximately 19 hours per week per student with several averaging 40 hours a week maximum and 10 hours a week reported as a minimum by others. It is evident from this data that some outside income is required by a majority of the BET students. Having to reach a job in the time after classes might in part be the answer to not making use of the library in Item 7.

9. Data on whether students felt they had made correct decision in selecting technology for career - Yes - 60%; No - 30%; Undecided - 10%. In the "No" category almost all students expressed anxiety regarding job opportunities on graduation. Of the undecided several preferred engineering, math, physics, and one pre-med education.

FINDINGS AND CONCLUSIONS:

A. Attrition and Academic Performance

Attrition in the BET program at City College has been minimal. Reasons for dropping out or leave of absence requests have been mainly based on military service, transfer of jobs to new geographical areas, or dissatisfaction with location of City College.

Since this participant in the Summer Institute is presently teaching part time in the BET program at City College, access to the record files has revealed that BET students perform academically as well as the engineering students. Approximate grade averages for the February 1971 class range as follows: 12% - A to A-; 27% - B to B-;

50% - C; 11% C to C-. September 1971 class data is unavailable at the time this report is being written.

B. The Need for Technologies

The increase in numbers of minority students in the BET program at City College should instill confidence in the Black and Puerto Rican student in that the Bachelor of Technology degree is within his grasp. Despite problems and hardships at their socio-economic level, once the degree is obtained, his upward mobility is far greater. Because of limited space, I will quote just one portion of the Interim Report of the American Society of Engineering Education entitled "Engineering Technology Study" dated June 1971 which points to the desirability of entering the technical field.

> Industry's present and accelerating future need for high-level technical personnel is well documented. The national surveys of industry conducted by Jacobsen and Defore confirm it. Jacobsen, for example, estimates that for every 2 technicians employed in 1967, 3 will be needed in 1972 and at least one-fifth of them will be required to have a baccalaureate degree (BET) or higher. This represents at least a doubling of the need for technologists with the bachelor's degree from 1967-1972.

C. Job Opportunities

From personal experience at Queensborough Community College over a period of 10 years in placing A.A.S. Mechanical Technology students with numerous companies as technicians, I have almost without exception been able to successfully obtain employment for the graduate, including those belonging to minority groups. Employment recruiters on campus have never been in short supply except with the falling economy in 1971. Starting salaries have risen over the period from $90 a week to $150 a week. Personnel managers from several engineering organizations have also been assuring that a technologist with a baccalaureate degree will start at a level between $9,000 and $10,000 per year and will be just as desirable, if not more so in some instances, than the engineering degree graduate. At the present time the upper limits cannot be projected.

CITY COLLEGE

BACHELOR OF TECHNOLOGY PROGRAM

Questionnaire - Fall 1971

1. What motivated you to enter the Bachelor of Technology Program? For example - was it employment opportunities that influenced your decision or what?

2. Were you in the SEEK or College Discovery Program at a community college prior to entering City College? If yes, which?

3. Were you in industry working as a technician with your AAS degree prior to entering City College?

4. What do you think of a Cooperative Technology Program? (Working one semester and going to college another semester) Are you in favor of?

5. Could you use such a cooperative program from financial need standpoint? Yes or No.

6. a) Do you have quiet place at home to study?

   b) Must you study in library to get work done?

7. Are you working at present while attending college? If so, how many hours?

8. Number of children in family.

9. If you could take your first two years at a community college over again, would you select technology as a first choice?

10. When did you graduate from your community college?

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

To Orient Local Community Groups to Educational and Industrial Opportunities in College Career Programs

by

Fred W. Schmitz
New York City Community College

OBJECTIVES:

The purpose of this follow-up demonstration project was to endeavor to bring to neighborhood Community Corporations and neighborhood Manpower Service Centers, specific information regarding Career programs in Engineering Technologies and Health Services.

DESCRIPTION OF PROJECT:

A meeting was arranged with the Informational Services area at the College, to ascertain what work was being done by the College and the City University recruiters. Information received indicated that very little was being done along this line by the College. Some general contacts were being made by the City University, but there was no concentration on individual colleges in these areas. As this information indicated that this was an area that was receiving little attention, the project was deemed worthy of being pursued and might be of value to various curriculums and to the communities.

Engineering Technology and Health Services Divisions, at the College, were contacted for literature that would be available and suitable for distribution to the Community Centers and Manpower Agencies. The following materials were available in sufficient quantities for distribution:

"Careers for Engineering Technicians"

"Chemical Technician"

"A Different Career in Chemistry" (Reprint from American Chemical Society)

"College Milestone" (Reprint from N.Y.C.C.C. Newsletter, Volume I, No. 1, Oct. 1971)

"New York City Community College - 1971-72 Catalog"

Surprisingly there was found to be no literature of an informational nature available from the Health Services area. It was therefore, decided to concentrate on the Engineering Technologies - Chemical, Construction, Electrical and Mechanical--in terms of discussions, facilities and laboratories visited.

Nine education directors from the New York metropolitan area were invided to the College, in groups of three, for the informational program planned. Each group was oriented to the College programs in Engineering Technologies with an initial meeting of one-half to one hour. A tour of the Engineering Technology Laboratories followed. An opportunity was afforded for the visitors to talk with students and faculty in various areas. Following the laboratory and facilities tour, the group met for a question and discussion period.

An opportunity was provided at this point for the visitors to discuss admission requirements, specific questions about aspects of the various curriculums, etc. The visitors were apprised of the opportunity for any individual young people, or groups, to come to the College. They were invited to visit laboratories; talk with faculty and students and become more familiar with any curriculum they might be interested in.

In order to allow education directors and others who counsel young people in the community to see the work of Engineering Technicians at first hand, an opportunity was offered to them to visit an industrial laboratory. A full day trip was arranged to the Esso Research and Engineering Laboratories at Linden, New Jersey. Four education directors from Community Corporations and three young people joined a group of faculty and students from the New York City Community College on this visit. They visited chemical laboratories, materials testing facilities, shop and repair centers, electronic laboratories, met working technicians and supervisors and had the opportunity to participate in a general discussion of the work and future prospects of a technician.

Follow-up visits were made to the Community Corporation representatives to discuss in more detail their impressions, ideas for future programs, any difficulties they experienced in relations with College or City University admissions and attitudes of young people toward the information available--through this project.

In addition to these visits by education directors, six Community Corporations and Manpower Centers were visited. The Engineering Technology Career programs were discussed, literature made available and the same offer of visits by young people interested in Career programs was extended through the personnel at these facilities.

CONCLUSIONS:

All representatives of the Community Centers and Manpower agencies were very impressed by the College facilities and potential of Career programs for young people in their communities. There was great interest by education directors in continuing contact with the College, and to receive information regarding programs, facility visits, admissions information, etc. The opportunity to visit industrial laboratories was also universally praised and it was hoped that future trips would include representatives and students from the communities. This is planned to be done by the Chemical Technology Department.

It is too early to tell whether significant numbers of students have been referred to any of the Career Programs at the College. Follow-up for Chemical Technology indicates that as of the end of 1971, four students accepted for the 1972 Spring semester were referred directly by Community Centers. Follow-up inquiries to other areas can be undertaken in the future.

There seems to be a woeful lack of recruiting literature available in the Engineering Technology and Health Service areas, plus a deplorable lack of College staffing in this area. With the financial pinch throughout the City University and at the College, this situation will probably not improve in the near future.

In terms of maximum cooperation with the personnel of the Community Centers and Manpower Agencies, there are some problems. They are generally overworked and understaffed, and it is difficult for many of them to spend a full day away from their offices. This was evidenced by the relatively poor turnout for the industrial laboratory field trip arranged, in spite of enthusiasm with which the offer was received. Meaningful responses in terms of student visits to the College were also poor, although this may be partially due to a close time--more positive returns may be forthcoming in the future with repeated contacts and visits to the Community Centers and Manpower Agencies.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

The Effects of a Problem-Solving Method of Instruction in Developmental Science

by

Victor S. Strozak
New York City Community College

PURPOSES AND OBJECTIVES:

The main purpose of the project was to determine the effects of a problem-solving method of teaching selected topics in physics and chemistry in developmental science. The evaluation of the effects of method was based on achievement gains and changes in attitude toward the course as measured by standardized tests.[1] The expectation was that the problem-solving method would result in greater achievement gains and a more favorable attitude toward the course.

DESCRIPTION OF THE PROJECT:

The material of the course was organized into problems which the students were required to solve. In the problem-solving method, the principles related to the problem were discussed and the students were required to develop their own laboratory procedures for collecting data related to the problem. Emphasis was placed on collecting, organizing and analyzing data; testing hypotheses; and forming conclusions based on experimental data. In the control group, lectures were conducted, students were assigned problems from the textbook and/or prepared worksheets, and prepared experiments were carried out. The main sources of materials used in the problem-solving method were The Man Made World and Physical Science for Non-Science Students. The main sources of materials used in the lecture-discussion method were those prepared at NYCCC for the developmental science course, and two text books: Introduction to Physics and Chemistry, and Man's Physical Universe.

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[1] Achievement was measured by the Sequential Test of Educational Progress, Science 2A and 2B; attitude was measured by A Scale to Study Attitudes Toward College Courses.

In addition to giving standardized tests during the term, 15 minute interviews were held with each student at the conclusion of the semester.

FINDINGS AND CONCLUSIONS:

The standardized tests were administered in September as a pretest and in December as a posttest. Results of the tests were analyzed using t ratios and an analysis of covariance. The major findings were:

1. The achievement of the problem-solving group was significantly higher than that of the lecture-discussion group.

2. Both groups made significant gains in achievement.

3. There were no significant changes in attitude toward the course within either group.

4. Despite a slight change in the positive direction, attitude toward the course remained negative for both groups.

It seems reasonable to conclude that a problem-solving method can result in greater achievement than a lecture-discussion method, and that there are factors other than teaching method which determine a student's attitude toward the course.

Follow-up interviews with students revealed that the most important cause of their negative attitude was the fact that they received no credit for the course. Most students believed that they were "doing work for nothing." Additional contributing causes, in order of importance, were:

1. A belief that too much material was covered; it was suggested that fewer topics be covered so that more emphasis could be placed on analysis.

2. A belief that certain topics were not important.

3. A need to be stimulated and motivated by "interesting problems and materials."

4. A belief that they were being held back from achieving their educational goals by being placed in developmental courses.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Presenting Career Opportunities to Minority Students

by

Louis W. Tana
Graphic Arts and Advertising Technology Department
New York City Community College

PURPOSES AND OBJECTIVES:

To increase the number of minority students in the field of Industrial Arts teaching. At present only 6% of the students enrolled in the Industrial Arts Technicians program at New York Community College are from minority groups.

To provide current involvement by students in professional organizations to reinforce their goal direction.

To better prepare students and increase their avenues of achievement by providing contact and realistic learning situations in professional organizations and in the school system that will be their future employer.

To have Industrial Arts teachers provide information to students about the needed skills for this career early in their schooling.

To better equip students with a knowledge of industry, I propose to contact employers for possible summer employment of Industrial Arts students.

DESCRIPTION OF PROJECT:

As Vice President of the Printing Teachers Guild of New York, I come into contact with a majority of the teachers in New York City and Nassau County. I have spoken at our past three meetings about the lack of minority students in the Industrial Arts Teacher Training Programs.

I have asked their assistance in making known the career opportunities available to their students and to the guidance personnel of their high school. Brochures such as the one in the appendix were given to them after each talk for distribution to interested students.

Due to the fact that the Industrial Arts Technicians program is new (it began September 1970 at New York City Community College) it is relatively unknown to many students in the high schools who are now juniors and seniors. Mr. Alfred Jenkins, a black officer in the Guild, has been instrumental in contacting and informing many students in Urban Training Centers in Brooklyn.

I participated and spoke to a group of Industrial Arts students on October 14th at New York City Community College to interest them in becoming student members of the New York City Industrial Arts Association. Our agenda included a plan to establish a student chapter at the college. I feel that early contact with teachers in the field can insure interests and learnings that will be assets to their future employment with the

New York City Board of Education.

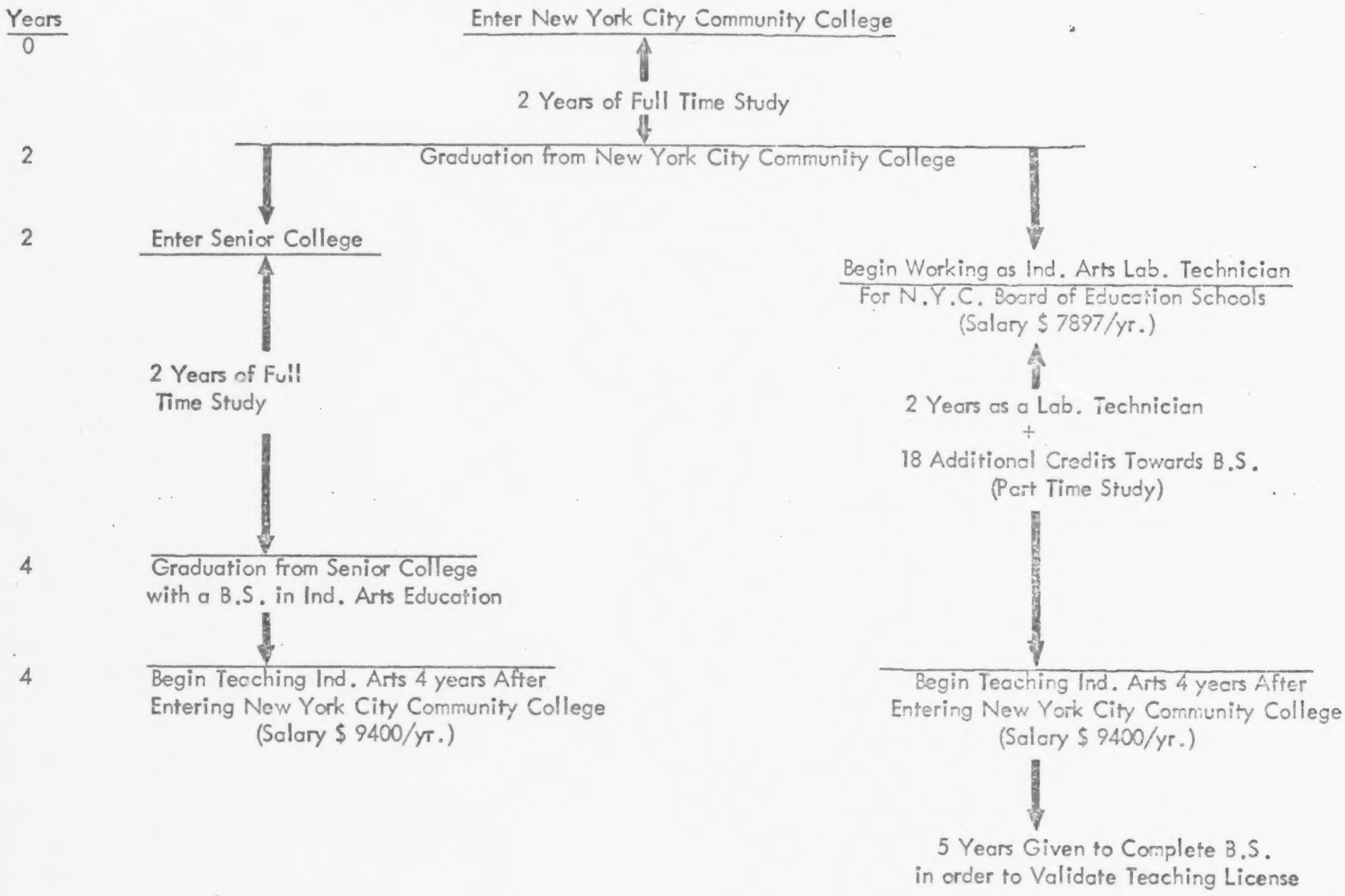
Summer employment in industry is another phase to strengthen a student's capabilities. To better equip students with a knowledge of industry, I established a contact with a Mrs. Carmen Vidal of Addressograph-Multigraph Corp., East 43rd Street, New York City, for training and employment this past July. One student, as a result of attending Varityper School for one week, was employed during the summer at $120 per week. I hope to expand this phase for the coming year.

FINDINGS AND CONCLUSIONS:

At various individual and group conferences with teachers throughout the city, I learned that many students are not interested in teaching. Many feel that it is not a good career at this time. The Bureau of Labor Statistics has published figures that it is an overcrowded field in the past few years. Some students say that teachers have to take too much from the present day students. Others say that more money can be made in the business world today. Another concept in the minds of some students is that Industrial Arts is one step removed from the blue collar worker.

All of these ideas have been brought forth and must be corrected. Good teaching is the avenue to a challenging and rewarding career that will bring the kind of contribution and service needed by all minority students and all students.

Arts Education Program at New York City Community College


Years
0
Enter New York City Community College
2 Years of Full Time Study
2
Graduation from New York City Community College
2
Enter Senior College
2 Years of Full Time Study
4
Graduation from Senior College with a B.S. in Ind. Arts Education
4
Begin Teaching Ind. Arts 4 years After Entering New York City Community College (Salary $ 9400/yr.)
Begin Working as Ind. Arts Lab. Technician For N.Y.C. Board of Education Schools (Salary $ 7897/yr.)
2 Years as a Lab. Technician + 18 Additional Credits Towards B.S. (Part Time Study)
Begin Teaching Ind. Arts 4 years After Entering New York City Community College (Salary $ 9400/yr.)
5 Years Given to Complete B.S. in order to Validate Teaching License

Louis W. Tana

"Presenting Career Opportunities to Minority Students"

Progress Report:

Presenting Career Opportunities to Minority Students through Industrial Arts teachers and professional organizations is one of the approaches I selected. I chose this in seeking an answer to why so few minority group students (less than 6%) are interested in the Industrial Arts Education program that leads to Laboratory Technician's positions and of course to a career education as teachers of Industrial Arts in the New York City Board of Education.

October 14th:

I participated and spoke to a group of Industrial Arts second year students at New York City Community College (Room 723 Namm, 12 to 1 P.M.) interested in becoming student members of the New York City Industrial Arts Association. Our agenda included a plan to establish a student chapter at New York City Community College. To help students become interested in this professional organization, we circularized and announced Vendors Night, being held at John Bowne High School in Flushing, Queens, Thursday, November 11, 1971 from 4 to 9:30 P.M. All vendors and suppliers of Industrial Arts materials set up booths and present the current and the latest in tools, equipment and supplies for Industrial Arts.

Selected teachers throughout the five boroughs demonstrate latest teaching techniques and project ideas that will be valuable aids in preparing these future teachers. I feel that early contact with teachers in the field can insure interests and learnings that will be assets to their future employment with the New York City Board of Education.

Summer Employment in Industry:

To better equip students with a knowledge of industry, I established a contact with a Mrs. Carmen Vidal of Addressograph-Multigraph Corp., East 43rd Street and Lexington Avenue, N.Y.C. for training and employment this past July. One student, as a result of attending Varityper School for one week, was employed during the summer at $120 per week.*

I hope to expand this phase for the coming year.

Louis W. Tana,
Assistant Professor
Graphic Arts & Advertising
Technology Department

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* See Varityper composition by the above mentioned student, Stanley Daniels of St. Albans, Queens, attached.

NEW YORK CITY COMMUNITY COLLEGE

OF THE CITY UNIVERSITY OF NEW YORK 300 Jay Street, Brooklyn, New York

Announces an INDUSTRIAL ARTS Cooperative Education Program

INDUSTRIAL ARTS COOPERATIVE EDUCATION PROGRAM

The college anticipates starting a cooperative education program for Industrial Arts Education students beginning with the Fall 1971 Semester. Students participating in the CO–OP Program in Industrial Arts must have successfully completed at least one year of their program and meet certain academic criteria. These students will have completed the following Industrial Arts courses after their first year:

WOODWORKING
GRAPHIC ARTS
METALWORKING
ENGINEERING DRAWING

These students will be capable of serving as Laboratory Technicians because of this educational background. As a Laboratory Technician, the student will assist the Industrial Arts Teacher in such areas as the preparation of educational aids, the operation of audiovisual equipment, the maintenance of tools and machines, the storage and distribution of supplies, and the maintenance of inventory records in the Graphic Arts, Engineering Drawing, Metalworking, Woodworking, and Electrical areas. In addition, he can assist in teaching routines and procedures.

Those selected will work full-time for one complete semester and the summer. At the conclusion of this work period, the student will return to school and, if you wish, will be replaced by another student for year-round coverage. The anticipated work schedule follows:

GROUP I	FEBRUARY through AUGUST
GROUP II	JUNE through JANUARY

This will enable the student to participate in full-time relevant work experience for a period of eight months. If the participating employer so desires, this schedule may be amended to meet specific employer requirements.

We invite your participation in this program. If further information is desired, please contact Lawrence M. Seigel, Coordinator of Cooperative Education at 643–2365.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Selecting and Applying for the Job that Meets the Applicant's Qualifications

by

C. Ruth Tulloss
New York City Community College

PURPOSES AND OBJECTIVES:

General

1. To introduce students to sources of securing job information.
2. To acquaint students with procedures used in applying for jobs.
3. To prepare students for job interviews.

Specific

1. To have students become theoretically involved by reading and understanding the employment booklet.
2. To have students relate to job situations by becoming practically involved, ie. completing application blanks, writing letters of application, composing resumes, taking employment tests, and participating in mock interviews.

DESCRIPTION OF PROJECT:

The project deals with procedures for securing employment. A booklet was devised as a guideline for students to read to gain knowledge about employment. After having read the booklet, students attended a workshop where the booklet was explained in depth and questions were answered. An assignment was made whereas each student would locate a job vacancy, write a letter of application, compose a resume, and complete an application blank. This assignment was submitted for evaluation. A follow-up workshop was held to discuss the assignment, participate in mock interviews, and take employment tests. The students were given questionnaires to evaluate the worth of the project.

CONCLUSIONS:

The students who participated in the implementation of this project had some knowledge of job procedures; but they were further enlightened through having attended the workshop. The majority of students were not aware of public and private employment agencies. Most had never typed a letter of application or composed a resume. Some did not know that an employment test may consist of more than typewriting and shorthand. All students felt the project was worth the time and effort and that more students should become involved.

SELECTING AND APPLYING FOR THE JOB THAT MEETS THE APPLICANT'S QUALIFICATIONS

A PROJECT SUBMITTED

to

EDPA SUMMER INSTITUTE

1971

C. Ruth Tulloss

Secretarial Science Department

NEW YORK CITY COMMUNITY COLLEGE

INTRODUCTION

This booklet is to assist you in your search for job employment. It contains a brief discussion of the essential steps in getting a job.

Your job-hunting campaign should get under way as soon as possible. Your contacts should include firms for which you have worked in the past, letters to friends who are employed by companies where you would like to secure employment, consultations with your college placement bureau, examination of classified sections of newspapers and magazines, utilization of bulletin boards, and visits to public employment agencies. Before launching your job campaign, you should objectively "package" your marketable skills to evaluate what you have to sell.

Whether you are seeking part-time or full-time employment, you should encounter both with zest. Employers who hire you part time will be appraising you not only in terms of how well you perform during this relatively short period but also in terms of the feasibility of offering you permanent employment upon your graduation. You should, therefore, think of your part-time employment as a door opener to a challenging full-time position.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

To Develop a Program to Enable the Non-Spanish Speaking Teacher to Communicate More Effectively with the Spanish Speaking Student

by

Roberta Weill
Borough of Manhattan Community College

PURPOSES AND OBJECTIVES:

1. To involve Spanish speaking Secretarial Science students to teach simple Spanish to a non-Spanish speaking department member.

2. To develop an understanding and appreciation of each other's role.

3. To enable the Secretarial Science teacher to better understand and deal with more effectively verbal and written English problems of Spanish speaking students.

4. To enable the Secretarial Science teacher to communicate more effectively with the Spanish speaking student on a personal basis.

DESCRIPTION OF PROJECT:

Originally, several teachers were to participate in the project. Due to illness, however, the writer was out of school for the month of October. The project, therefore, was revised to include only the writer in addition to the two participating students. Although the writer was not in contact with the students until November, she did attend an adult education class in Spanish conversation during October. She continued to attend this class until its conclusion in December. This class established a framework for the interaction with the students on her return to school. In addition to attending the Spanish class during her absence from school, the writer read magazine articles and a book dealing with Puerto Rican life in New York and in Puerto Rico. This background information gave the writer many cultural insights regarding the Puerto Rican student in New York today.

From November 2, 1971 to January 11, 1971, the teacher met with the two students for one hour each per week. The conversations and discussions encompassed what the teacher was learning in her adult education class. The textbook, Spanish Made Simple, was an excellent book for the purpose of this project because it concentrated on simple everyday conversations.

FINDINGS AND CONCLUSIONS:

Although the writer achieved a certain degree of success in speaking simple conversational Spanish, many more hours of intensive conversation would be necessary to attain a level of competence to adequately converse in Spanish. Also, additional training would be necessary in order for the teacher to better understand the verbal and written English problems of her Spanish speaking students.

If there had been several teachers participating, as originally planned, the motivational level of the group might have been higher and more progress would have been made.

During the course of the project, the writer was aware of how easily a student becomes discouraged as she was experiencing the frustrations of a new learning experience. The students, in turn, became aware of the communication difficulties inherent in teaching.

This was the major finding of the project because it led to more effective communication between the individuals involved; the participants related to each other on a person-to-person basis--the traditional teacher-to-student and student-to-teacher relationship ceased to exist.

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1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

A Counseling Program in Mathematics for Minority Students Entering Engineering Technology Programs

by

Abraham Weinstein, Professor and Chairman
Department of Mathematics and Computer Science
Nassau Community College

PURPOSES AND OBJECTIVES:

The purpose of this project was to establish a counseling program in mathematics for minority students entering engineering technology programs. The counseling program consisted of a counseling team who advised the minority students entering engineering technology programs by properly placing these students in the correct required college mathematics course, allowing them a greater chance of success in mathematics and engineering technology. Besides properly advising these students in the correct required college mathematics course, the counseling team also was responsible for frequent periodic follow-up consultations with the students and their mathematics instructors. The counseling team consisted of three selected interested members, one being a minority student who successfully completed the first year of study of one of the engineering technology programs and the remaining two being faculty members from the engineering technology department and the mathematics department.

The objectives of this project were to reduce the high percentage of attrition rates in mathematics which are presently common in engineering technology programs and to give minority students concentrating in engineering technology programs a greater self awareness of their mathematical capabilities, needs, attitudes, and interest for their careers.

DESCRIPTION OF PROJECT:

To determine the significance of the project and to achieve statistical validity, the selected population consisted of thirty-six minority full-time students who were subjected to the selection procedures and received admittance to the engineering technology programs at Nassau Community College for the Fall 1971 semester. From this population two groups were established: the first, called the experimental group, included eighteen participants who received advised placement in a college mathematics course by the three member counseling team and were involved in periodic follow-up consultations with the counseling team. The second, called the control group, included the remaining eighteen participants who did not participate in the counseling program; each was matched to a specific experimental participant.

Each of the matched experimental and control participants were paired for the following independent variables used by the admissions office of Nassau Community College: secondary school average, rank in secondary school graduating class, and scores on the College Entrance Examination Board's Scholastic Aptitude Test in Verbal and Mathematics.

Then, the undergraduate college performance for the Fall 1971 semester of the participants of the two groups was analyzed by means of the college grade point average and the mathematics grade point average to see if there was any significant differences between the participants of the two groups.

FINDINGS AND CONCLUSIONS:

A number of statistical techniques were used in this investigation to obtain, present, and analyze the reliability of data information.

The statistical results indicated a marked similarity between the total experimental and control groups with regard to: secondary school average, rank in secondary school graduating class, and scores on the College Entrance Examination Board's Scholastic Aptitude Test in Verbal and Mathematics. The data, gathered for the matching two groups, were tested with respect to the above independent variables. According to the findings of the t-test of significance, there were no significant differences and the two groups were found to be relatively homogeneous.

The next phase was to analyze the undergraduate college performance of the two groups for the Fall 1971 semester with respect to the college grade point average and the mathematics grade point average. The college grade point average of the experimental group was eight-tenths (.8) of a point higher than that of the control group. The mathematics grade point average of the experimental group was one and two-tenths (1.2) points higher than that of the control group. In both cases, the t-test indicated that the experimental group scored significantly higher at the one percent level than that of the control group.

Another statistical finding was the proportion of the experimental participants who dropped out of the engineering technology programs or college were significantly smaller at the five percent level than the proportion of the control participants who dropped out of the engineering technology programs or college.

On the basis of the findings, it was possible to draw the conclusion that the minority students concentrating in the engineering technology programs who participated in the counseling programs were more significantly successful in the first semester of their college career than the minority students concentrating in the engineering technology programs who were not involved in the counseling program.

At this point, I would like to state two important facts that occurred at Nassau Community College due to this project.

The first was that there was a closer working relationship between the engineering technology department and the mathematics department. The mathematics department realized the mathematical needs of occupational education students and introduced a new course, "Algebra and Trigonometry," for four (4) credits which was highly needed by these students.

The second was that the mathematics department was awarded a $20,000 grant from the State Education Department under the Vocational Education Act to establish a counseling program in mathematics for occupational education students.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Determining Changes in Attitude Toward College by Black and Puerto Rican Students During Their First College Semester

by

Leonard Weiss
Mechanical Technology Department
New York City Community College

PURPOSE AND OBJECTIVES:

The project consists of determining the attitudes of Black and Puerto Rican freshmen students toward college at the start of their freshman semester; then determining if these attitudes are modified during their first semester at college.

During the Summer Institute, students strongly condemned their High School experiences. They also expressed doubts about college.

One objective is to determine if these were the sentiments of a vocal minority or of the majority of the students. Another objective is to determine how many students believe racial discrimination to be a factor in their education.

DESCRIPTION OF PROJECT:

The project data was gathered solely by questionnaire. The first questionnaire was given to freshmen Black and Puerto Rican students in the Mechanical Technology and Design Drafting programs during the first week of their freshman semester. A second questionnaire was distributed to the same students at the end of the semester. The questionnaires were anonymous; no attempt was made to correlate an individual response to the first questionnaire with the same individual response to the second questionnaire. The data was handled on a total basis.

The questionnaire headings stated that it was to be answered only by Black and Puerto Rican students. Some instructors asked for these students only to take a questionnaire and some used their own judgment in identifying Black and Puerto Rican students.

The first questionnaire contained 18 questions; the second had 12 questions--answers were check off, such as, Yes - No - Don't Know. Thirty students took part in the study. The breakdown between Black and Puerto Rican students is unknown. All the students in the study are male.

FINDINGS AND CONCLUSIONS:

The answers are generally positive and hopeful. Most students had high hopes for college and most seemed to feel some measure of satisfaction after their first semester. They entered New York City Community College with the hope that College would be better than High School. They expected to find better teachers, better counseling and less discrimination. Most were in a program of their first or second choice, a few in their third choice program.

A minority did not expect college to be an improvement over High School. These students all expected to find racial discrimination in college.

The second questionnaire seemed to verify the expectations of the students. The majority found their "experience during this first semester at college compared to High School" to be "much better" or "better." In addition, this majority did not encounter racial discrimination and thought College teachers were better than High School teachers. Most students saw a counselor and were positive about the advice received.

The minority also had their expectations fulfilled. They found discrimination, poorer or "the same" teachers, counselors "not interested" and were "not very happy" at New York City Community College.

There were areas of almost total agreement on the part of all the students. They all thought that the curriculum was good for them and they all agreed that they did not want to live in their present neighborhood after graduation. About half the students believed white teachers and white students to be biased; only one quarter actually encountered discrimination.

Work must be done in the College to make the disadvantaged student feel more "at home" and "wanted." Many come to College with high expectations and are pleased to some extent. Some, however, do not expect very much and so find College to be a disappointment.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Integration of Remediation in a Technical Curriculum

by

Alex Zemcov
Voorhees Technical Institute

In a technical curriculum in a community college, particularly the one located in a large urban area, there are many minority students badly in need of remediation. This prior minimal level of achievement is particularly important in courses such as electronics and physics. Without this the student can hardly be expected to express the broader concepts that he must learn. Many students may be deficient in mathematical skills but the minority student from ghetto high schools may be more so. He therefore does not have an equal chance to learn and express the knowledge.

In the classroom situation he must not feel that only he or a small group are receiving remediation. Isolation from the class may pave the way for a worse self image and further failure which he expects. Anxiety may creep in before the few semester examinations. An anxious student may not show the instructor the level of achievement or may not learn at all. A procedure was worked out to somehow alleviate these problems.

Two sections of electrical technology were taught exactly the same freshman course in direct current circuit theory by the same instructor. Between the two classes there were eleven minority students. One class was used as a control and it was given three standard tests during the semester and a final examination. The other class, however, was given five tests, one after each logical section of material. The material taught included sufficient remediation for the particular topic and was not separated from the lecture but made an integral part of it. Every student, upon failure of a test, repeated it up to two times in the weeks preceding the next test. Each follow-up quiz was similar to the first one. All students were required to take the quizzes and the follow-ups until they passed that particular set. In between quizzes the instructor was available for consultation.

Although the better students at times felt that part of the lecture was basic, the slower student found the remediation of great value before the presentation of the topic in the second part of the lecture. There was no distinction made between parts one and two. Within one lecture sufficient time was devoted to the slower and faster student in order to keep interest up. The poorer student felt more interest in the first part of the class but did not feel that it was meant only for him. The quizzes reflected this breakdown of material. One could possibly do better on the remediation part than the concept part, or vice versa. No effort was made to include mathematical subject matter outside of what was needed. Homework was also closely geared to the lectures.

The students at first resented being quizzed so often. They felt them to be a burden rather than an opportunity to learn and improve. As time went on, however, the more serious and motivated ones began to take advantage of the procedure. From rather poor test grades at the beginning of the semester there was steady improvement in most cases. The student began to consider these tests a challenge since he was not penalized for failure the first few attempts. The students noticeably gained interest in their progress and wanted to find ways to improve their performance.

Not every minority student was able to improve. One student had such a severe lack of algebra that only a full semester course could have rectified the deficiency. Another student had extremely poor working habits examplified by his not buying a textbook until well into the fourth week of the semester. About one half of the minority students had problems one way or another in reading and understanding technical material. Although the control class had a better minority student the grades in both classes were approximately equivalent. Only ten percent of the total minority group were unable to meet the minimal standard and were given failing grades. Although as a group the minority students achieved less than the rest of the class, it must be remembered that their starting point was somewhat lower. It is unfortunate that related skills such as reading, study habits, and writing could not be substantially tackled. It was felt that improvement in these areas would have meant a real difference. There is every reason to suspect that next, semester, with the groundwork laid out, achievement of the minority group will be the same as the rest of the class.

1971 EPDA SUMMER INSTITUTE & FOLLOW-UP PROGRAM
INDIVIDUAL DEMONSTRATION PROJECT

Establishing What Minority Freshman Technology Students Can Look Forward to in Industry

by

Lawrence Zucker
Queensborough Community College

PURPOSES AND OBJECTIVES:

Many minority students who are now graduating high school are bewildered as to what kind of profession they should enter. Many are advised to obtain a liberal arts degree only. They are counseled that a career program such as Electrical Technology leads to a dead end field.

I am trying on a small scale to gather some information on what a minority student can look forward to in the electrical technology field. This information will help entering freshmen in making a decision if the field is for him or not.

DESCRIPTION OF PROJECT:

To obtain this information I have made up an anonymous questionnaire (see Appendix A) to be distributed to evening electrical technology students at Queensborough Community College. These students are usually older, and work during the day in some technology-oriented company. They should have a first-hand knowledge on conditions as they affect the minority employee. The questionnaire should answer these three important questions: (1) What is the advancement status of minority employees? (2) Are there any minority supervisors at your company? (3) Would you recommend minority students to enter the electro-technology field?

Of the 120 questionnaires distributed, 51 completed questionnaires were returned. Analyzing the questionnaire in detail, it was determined that 12 of the 51 replies were from minority students. The questionnaire results were tabulated in two parts. One part analyzed what a minority employee thinks about the technology field and the second part contained the results from the remaining 39 students.

FINDINGS AND CONCLUSIONS:

The questionnaire results of the minority students are tabulated in Figure 1. On the question of minority employee advancement, 5 indicated advancement was good, 6 had no comment, and 1 said that it was bad. Four had minority supervisors, and 2 didn't have any. On the question of whether students should go into the technology field, 10 were for it, 1 against it and 1 no comment. Eighty-three percent of the minority employees felt minority students should enter the electrical technology field.

Analyzing the remaining 39 questionnaires (tabulated in Figure 1) indicated advancement for minority employees were 6 good, 1 bad and 32 no comment. Of the 39 employees, 9 had minority supervisors. On the question of minority students entering the field, 23 yes, 1 no, and 14 no comment.

An overall analysis on whether a minority student should enter the Electrical Technology field, 56% were for it, 5% said no, and 25% had no comment. An important result was that only 5% of all students felt that the minority student should not enter the Electrical Technology field. On the amount of minority supervisors, 46% of all the students had at least 1 minority supervisor at their place of employment.

On the question of advancement for minority employees, 18.3% felt achievement was good, 3.3% bad, and 78.4% had no comment.

The concensus of the questionnaire is that the Electrical Technology field is not a dead end for the minority employee. A minority student, once he graduates with an electrical technology degree, has a good chance of getting a good job, and advancement is good.

QUESTION		YES/GOOD	NO/BAD	NO COMMENT
ARE THERE ANY MINORITY SUPERVISORS AT YOUR COMPANY?	12 minority students	4	2	6
	39 remaining students	9	14	16
WHAT IS THE ADVANCEMENT STATUS OF MINORITY EMPLOYEES?	12 minority students	5	1	6
	39 remaining students	6	1	32
WOULD YOU RECOMMEND MINORITY STUDENTS TO ENTER THE ELECTRO-TECHNOLOGY FIELD?	12 minority students	10	1	1
	39 remaining students	23	2	14

Figure 1

GENERAL QUESTIONNAIRE

NEIGHBORHOOD BORN IN ______________________________

PRESENT NEIGHBORHOOD ______________________________

HIGH SCHOOL DEGREE ACADEMIC __ GENERAL __ COMMERCIAL __

COLLEGE CREDITS COMPLETED ______________________________

PRESENT SALARY __________ STARTING SALARY ________ YEARS AT COMPANY __

ADVANCEMENT MADE AT COMPANY ______________________________

ARE THERE ANY MINORITY SUPERVISORS IN YOUR COMPANY? ____________________

IF YES, HOW MANY? __________________

WHAT IS THE ADVANCEMENT STATUS OF MINORITY EMPLOYEES? ____________________

____

____

WHY DID YOU CHOOSE THE ELECTRICAL TECHNOLOGY FIELD? ____________________

____

____

WHEN YOU RECEIVE YOUR AAS DEGREE WHAT WILL BE YOUR NEW POSITION AND SALARY, IF ANY? ____

____

____

WILL YOU RECOMMEND MINORITY STUDENTS TO ENTER THE ELECTRO-TECHNOLOGY FIELD?

____

____

____

APPENDIX C

LIST OF CONSULTANTS AND STAFF

1971 SUMMER INSTITUTE

IMPROVING THE SKILL OF TWO-YEAR COLLEGE FACULTY IN WORKING WITH MINORITY GROUP BUSINESS AND ENGINEERING TECHNOLOGY STUDENTS

LIST OF CONSULTANTS AND STAFF

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3. Diana Aird, Student Consultant, NYC Community College
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28. Andrew Collins, Student Consultant, NYC Community College
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76. Ofalia Riardo, Community Consultant, Bushwick Community Corp.
77. Angel Rodriquez, Student Consultant, Bronx Community College
78. John Rodriquez, Student Consultant, Borough of Manhattan Community College
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80. Louis Sandhop, Industry Consultant, Con Edison
81. Isaura Santiago, Consultant on Minority Youth, ASPIRA
82. Brenda Schofield, Industry Consultant, Manager of Community Training, Abraham & Straus
83. Paul Sheely, Industry Consultant, Director of Manpower Placement, Printing Industries of Metropolitan New York
84. Cynthia Silverman, Secretary, Division of Technology, NYC Community College
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